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HISTORY OF THE UNIVERSITY OF ARKANSAS.

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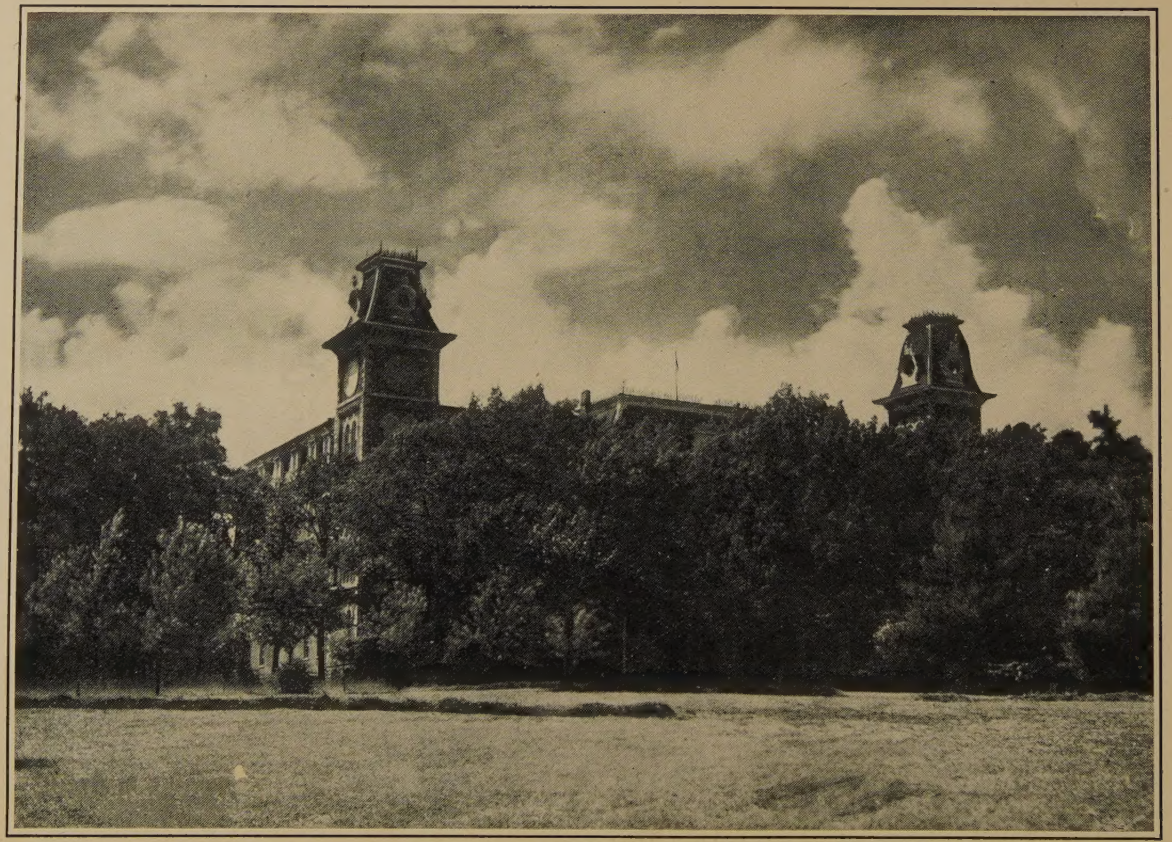

University Hall.

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HISTORY

OF THE

University of Arkansas

By

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UNIVERSITY OF ARKANSAS

FAYETTEVILLE
UNIVERSITY OF ARKANSAS
1910

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ERRATA

PAGE

96. In line 2 read Demmler. Same elsewhere

111. In line 29 read Edmiston. Same elsewhere.

151. In line 31 read Hornor. Same elsewhere.

172. In line 15 read Reinhard; in line 18 Armistead. Same elsewhere.

198. In line 30 read florescence.

208. In line 9 read *douceur*.

242. In line 34 read Pickel.

256. In line 4 read Burnell.

317. In line 18 for murals read mammals.

381. In line 34 for 1903 read 1897.

433. In line 27 for awarded read appointed.

470. In line 32 for education read experiment station.

477. Lines 10 and 11 should be reversed.

486. Line 31 should read as follows: property. He was a member of the Knights of Honor and a devout

495. In line 16 for 1877 read 1876.

497. In line 30 for Antony read Anthony.

507. In line 1 for 1872 read 1873.

515. In line 26 for Fourth read Fourche.

532. In line 16 read William George.

533. In line 27 omit sentence beginning with "During his services"

534. Line 5 should read as follows: cultural Science, and of the Indiana Academy of Science. He was vice-president of the
In line 7 for vice-president read member.
In line 8 omit 1896.
In line 9 for president read vice-president.
To line 10 add: He was a member of the Beta Theta Pi and of the honorary scientific society, Sigma Xi.
In line 32 read Miss Mary Stanley Newman.

537. In line 33 for 1886 read 1866.

539. In line 3 and under picture for Birton read Burton.

549. In column 2, line 1 read Barrows.

551. In column 1, line 11 read Dunn, B. J.; line 22, Edwards, Howard.

552. In column 1, line 7 read Hardiway, R. E.; mentioned, 263.

553. In column 2, line 6 read Pace, Ada, 315; line 13, Menke; line 36, Reagan, Hugh.

554. In column 1, line 4 read Rose, Lewis, 254; line 13, Schapper.

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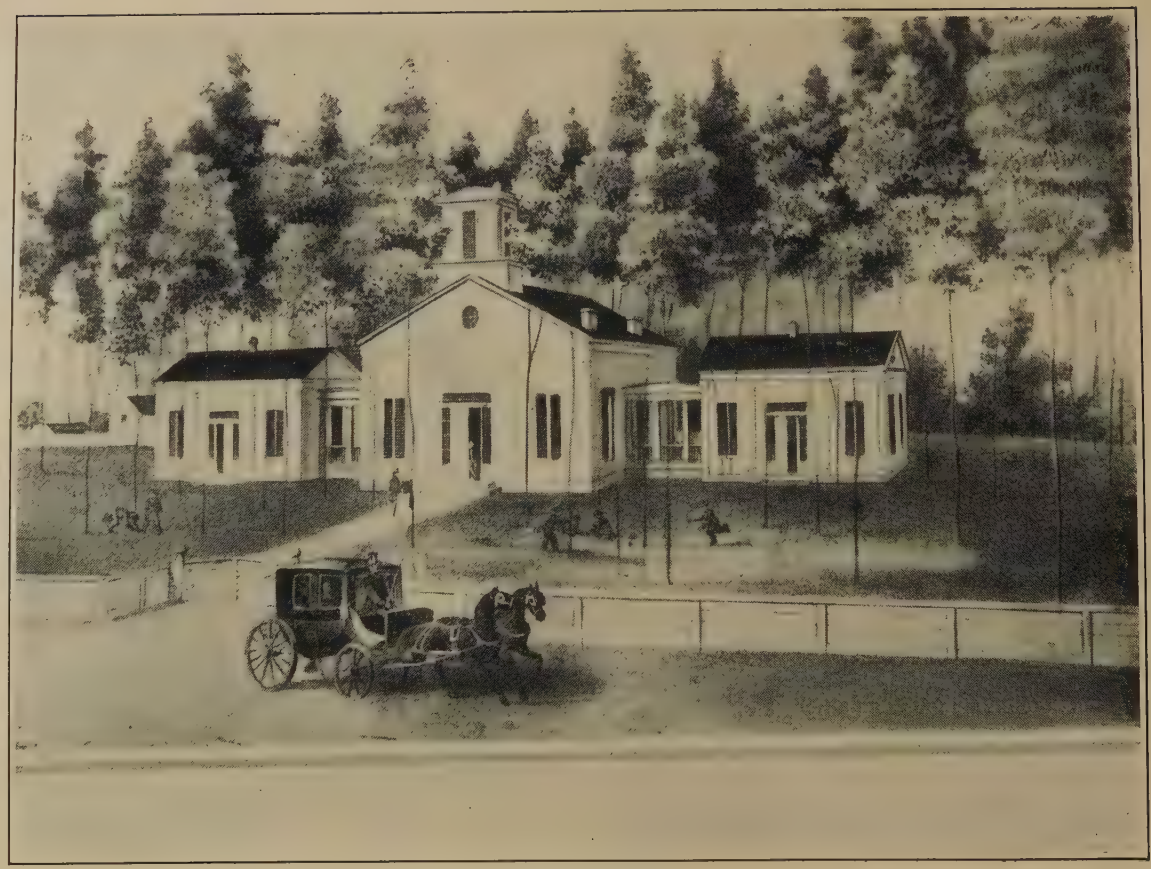


Arkansas College.

CHAPTER I.

EARLY SCHOOLS IN ARKANSAS.

As the University of Arkansas is at the head of the public school system of the State, a brief sketch of the early educational conditions, of the rise of the public school system, and of antebellum academies and colleges of the State will afford a good background for a history of the institution.

The People.

The white population of Arkansas for the first half of the 19th century came from two sources—the French and the Anglo-Saxon. The French settlers came from Canada and Louisiana, while the Anglo-Saxon, the main element, came from the states east of the Mississippi River. In the educational history of Arkansas the French have contributed practically nothing. It is an event of academic rather than of practical interest that three years after De Tonti founded Arkansas Post, he bestowed upon the church several thousand acres of land near the post, and among other things prescribed that the missionary there should instruct the natives in agriculture. But what appears on paper as an auspicious beginning is no index to the later educational work of the French. The priests continued to instruct the natives more or less in religion; yet the French have played an inconspicuous and relatively unimportant part in Arkansas history. While a few of them were here all during the 18th century, they did almost nothing to develop the country. In point of blood the French element in our people is insignificant; in point of influence on our civilization, negligible. Instead of lifting the Indians to their level, they too often took on the habits of the natives. Even as late as 1799 the white population of Arkansas was only 368. Hence, in the educational history of Arkansas, the only factor to be considered is the Anglo-Saxon.

Of the Anglo-Saxon settlers little needs to be said. They were similar in character to the frontier settlers of most American states. They came from the older states seeking a virgin soil. They had all of the qualities characteristic of American pioneers. Unlike the French

they liked country life, and opened and cultivated isolated farms. They were inured to hardships and bravely suffered the privations and hardships of frontier life—dangers, isolation, felling the forests and tilling the soil, almost no trade nor cultural relations with the outside world, a "hog and hominy" life. After the first decade of the 19th century the white population grew rapidly enough. In 1810 they numbered 1,062; in 1820, 14,255; in 1830, 30,388; in 1835, 52,241. In 1819 the most important settlements, scattered over the territory and separated by wide stretches of wild forests, were Arkansas Post, Pine Bluff, Benton, Cadron, Fort Smith, Hot Springs, Davidsonville, Little Rock, Pyattstown, and Pecannerie. Of course people under the conditions described are more absorbed in solving the problems of physical existence than in planting schools and founding universities.

Private Schools.

Up until after the Civil War the private school was the prevailing type in the educational economy of Arkansas. Indeed, frontier conditions prevailed here until the fifth decade of the last century. There were no schools of any kind until the second decade, and scarcely any until the third. The educational advantages in the early days were poor in the extreme. There was no money with which to establish and maintain schools, and, moreover, the country was sparsely settled, the population in 1819 being only one person to every four square miles, and indeed, as late as 1836, less than one to the square mile. Education, therefore, was left almost exclusively to private effort. The teacher canvassed the community with his "articles," as the paper setting forth the terms of the school was called, and the people subscribed "scholars" at one or more dollars each per month. The teacher "boarded around" among the patrons as part pay. Owing to the scarcity of money it was frequently stipulated in the contract that he was to be paid in meat, pork, sugar, coffee, or other produce. The preacher, considered an authority on all subjects, often taught these frontier schools. The course of study consisted of the three R's—Reading, 'Riting and 'Rithmetic. The geography of the United States sometimes found its way into these forest schools, as Schoolcraft calls them. The all-important text-book, however, was Webster's "Blue Back Speller," which served both as a reader and a speller. Friday afternoons were given over to spelling matches.

The neighborhood spelling bee often grew out of these Friday afternoon contests. The people for miles around gathered at the school house Saturday night. Sides were chosen, two rows faced each other, interest ran high as the lines thinned, and loud was the applause that greeted the victor. He became the hero of the neighborhood. The old log school house was typical. It served alike for church, school and court. It consisted of one large room with a door at one end or side and a chimney at the other. The window was a hole two or three feet square cut in the wall. A plank pushed between two logs of the wall served as a desk, while the benches were split logs supported on wooden pegs. Such is a description of the frontier schools. Crude as they were, many isolated settlers did not enjoy the advantages of even such schools.

Public Schools Before the Civil War.

When Arkansas was made a territory, there was on the part of the government no organized effort at education. Doubtless a few private schools had been taught in the more populous neighborhoods. Arkansas, in common with other western states, fell heir to the 16th section of each township for common schools. The condition on which congress granted these lands to Arkansas was that each 16th section should be an endowment for the schools of the township in which it was located. The grant was not made as a whole to the State to be administered in the interest of the common schools of the State in general. The lawmakers took no notice of this grant until November 21, 1829, when they authorized the county court, on the petition of the people of a given township, to appoint a trustee of the school lands. The act made it the duty of the trustee to preserve said lands and to lease them for a period not to exceed five years at a time. It made it the duty of the county court to apply the rents derived from these leases to meeting the expenses of running a school or schools in the township. As no appropriation was made to supplement the 16th section funds, nothing of consequence came of the act. During the territorial days there were probably no public schools at all.

In 1836 Arkansas was admitted into the Union. The framers of the state constitution professed great devotion to education, declared it necessary to the perpetuity of free institutions, and made it the duty of the general assembly to provide for a judicious administration of

the federal land grants for school purposes. It does not seem to have occurred to them that the 16th section was an inadequate endowment, and that to provide efficient schools it would be necessary to supplement it by a local tax levy or by state appropriations. Arkansas' first state governor, James S. Conway, in his inaugural address in 1836 and in subsequent messages, urged upon the general assembly a system of public schools. He reminded the legislators that the State must rest upon the understanding and reverence of the people, that the establishment of institutions of learning on a liberal scale would give to the State a dignified place in the sisterhood of commonwealths, and that Arkansas had ample means for founding and maintaining a public school system and a university. The governor certainly overestimated the value of the land grants or underestimated the cost of a thorough system of schools. However, he deserves well at our hands because of his strong utterances.

Act of 1843.—By 1837 the general assembly was convinced that the rents on the 16th section would not adequately support a school in each township, and therefore passed a resolution, memorializing Congress to authorize the State to sell her school lands and to use the interest for school purposes. In 1843 Congress granted this request by authorizing the general assembly to sell all school lands granted by the general government, to invest the money derived from said sales in productive funds, and apply the proceeds of said loans to the support of schools in the townships for which they were reserved. The consent of the people of each township was made a condition precedent to such sales. The act was careful to charge the legislature with the duty of safeguarding the grants against injury or waste. Congress seems to have labored under the impression that the rent of the 16th section or the interest on the proceeds of its sale would be sufficient to maintain a school in each township, for the act of 1843 provided that in the event the income in any case was insufficient to run the school, the legislature was directed to invest the same in productive securities until the proceeds of the funds belonging to said township was sufficient to maintain permanently the school or schools of the township.

This act of Congress gave to the legislature plenary power respecting the school lands. Heretofore the legislature could provide merely for leasing them. The State exercised all the rights conferred by the

act and provided for the sale of the lands. It can not be said, however, that the administration of the trust was wise. In his message of 1843 Governor Yell pressed the cause of education upon the attention of the general assembly, suggested that the law of self-preservation was a sufficient incentive to induce us to lay a broad foundation for universal education, and urged that the subject be no longer neglected, adding, as did Governor Conway, that the State had "ample means in the form of land grants for common schools, as well as colleges and universities."

Upon this recommendation the general assembly enacted in 1843 the first comprehensive school law in Arkansas. The act provided that on the prayer of the people of any township where there were five families and fifteen white children, the county court should order an election in said township for the selection of a commissioner for a term of two years, who should be charged with the duty of selling the 16th section, and three trustees who should have supervision of the schools. The commissioner was directed to sell the 16th section on ten years' credit at not less than $2.00 per acre. The trustees were authorized to build school houses, to employ teachers, and were required to keep a school or schools open four months each year taught by a competent teacher. Instruction was "to be given in orthography, reading, writing, English grammar, geography, arithmetic, and good morals." The commissioner and the trustees were authorized to receive donations and subscriptions to supplement the income from the 16th section. In taking the annual school census the trustees were directed to ascertain the amount subscribed for each pupil, the number for whom there was no subscription and who were unable to subscribe. The township was required to pay the tuition and furnish the books of indigent children. One thousand dollars were appropriated for the purchase of books. The law illustrates well the prevailing view of public schools; in fact, it represents the best thought of the State regarding a public school system before the war. There is no thought of public taxation as a basis of public education. Schools were to be supported jointly by private subscription and by the income from the 16th section fund. The State had no duties in the premises except administration.

Act of 1849.—The law of 1843 was disappointing, if its friends hoped that it would provide a system of schools. Six years before its

passage Governor Conway had said that Arkansas was almost destitute of common schools, and three years after its passage Governor Drew could as truthfully say that the State had not carried into execution the plan for schools heretofore outlined, nor did he think it could do so in the absence of means. The law makers, however, were not to be discouraged. They attacked the problem again. This was January 5, 1849. The occasion was two acts of Congress, one July 29, 1846, allowing Arkansas to divert the seminary land fund to the support of common schools, and the other, March 3, 1847, authorizing the general assembly to sell the saline lands donated by the general government to the State. Whereupon the general assembly completely re-wrote the school law. The act provides that the funds derived from the sale of the seminary and the saline lands shall be divided among the counties in proportion to the school census for common school purposes, that said fund shall be a perpetual endowment for the schools of the county, that the county treasurer shall loan it upon good security at not exceeding ten per cent, and shall distribute the income thereon among the districts on the basis of school population. The political township was made the unit of local school organization. It was made the duty of the county judge to require every two years on the first Monday in May some justice of the peace in each township to hold an election at which the votes of each district should elect three trustees, whose duties were those usual to such officers, such as taking the school census, employment of teachers, issuing warrants, and supervising the school. No school funds were to be expended for books, maps, or stationery. To carry out its provisions the act appropriated $250,000 from the seminary and the saline land funds to be paid out as the money accrued from sales. The general assembly might have appropriated a million dollars as well, for nothing like the appropriation made ever came into the treasury from these sources to be distributed. The legislators were still groping in the dark; they had not yet learned that prime fact in public education, namely, that it must rest for its support upon public taxation.

Educational statistics do not show that the legislation of 1849 was productive of much better results than that of 1843. The secretary of state, by reason of his office, was commissioner of schools. In 1854 David Greer, acting commissioner, made his first report. Many counties had sent in no reports; he was of opinion that some counties

had no school organization whatever. He said that the schools of the State presented a gloomy picture. However, he was not discouraged and advised the creation of the office of state superintendent of schools. The school fund in the hands of the commissioners from twenty-seven counties reporting was $155,544.02, the amount per county varying from $600 in Van Buren County to $22,000 in Union County. The number of schools reported in the twenty-seven counties varied from one to twenty-two. Chicot County reported one school with two teachers, and a salary expenditure of $1,800, while Jackson County reported twenty-two schools with 500 pupils, and $4,062 for salaries. The census of 1860 shows 652 common schools in forty counties, there being no reports from twelve counties. The number of schools varied from two in Yell to fifty-seven in Washington. For the year 1859-60 the report for Crawford County shows ten schools, an enumeration of 2,470, total receipts of $7,706.02, $1,431.72 of which was derived from the county fund, $143.30 from the State, and $6,131 from township funds. An average of $27.00 per month was paid to the ten teachers, only one of whom was a woman.

These facts show that the efforts at public education before the war were all but failures. Frequent complaints were heard from public officials. Besides those already referred to, Governor Elias Conway in 1854 said that there were but few common schools in operation because of a lack of means. For the purpose of strengthening the schools, he advised that the general assembly authorize the county court to appropriate the poll tax for school purposes. Mr. Greer, the acting commissioner, in 1856 said with emphasis that the school lands were being sacrificed daily by a combination of interested persons. Two years later he recurs to the same subject and complains that the commissioners are ignoring the plain provisions of the law in selling schools lands, and attributes to this fact the failure of the school system rather than to its intrinsic defects.

Public Schools After the War.

The war practically stopped all educational work in the State. By the close of 1863 the Federals had gained control of over half of Arkansas, and under President Lincoln's plan of reconstruction a new constitution was framed and adopted early in the following year. Isaac Murphy was elected governor. He was a teacher and a

friend of public education. In his address to the people of the State May 10, 1865, and in his message of November 8, 1866, he strongly urged upon the general assembly the establishment of a system of common schools. He had a clear grasp of the situation, for he reminded the people that if they had free schools they must pay for them, that is, support them by taxation. He told them bluntly that they were not to look to the land grants of the general government as a basis of support for their schools. He even went further and said that these land bounties of the general government had been of little service to the cause of education. It is extremely doubtful if they did not even injure the cause in Arkansas by leading the people to depend upon them instead upon taxation. Indeed, Governor Murphy was our first educational statesman. Other governors and legislators had been friendly to the cause, but they had failed to grasp the basic principle underlying public schools.

The general assembly acted upon the governor's advice and passed the act of 1867, which reorganized the schools and laid the basis of the present system. Schools were to be supported by a two mill state tax and the income from the permanent school fund. The law created a complete educational machinery—a state superintendent of public instruction, county commissioners and district trustees. The first tax levy under this law yielded $64,875.32. However, the law was scarcely allowed to go into operation. The carpet bag government brought into existence by the reconstruction acts of Congress overthrew the Murphy government and with it the school law of 1867. The carpet bag constitution of 1868 indulged in platitudes on the subject of education, made it the duty of the general assembly to maintain a system of free schools, created the office of superintendent of public instruction, and provided that the revenue of the schools should consist of the interest on the permanent school fund, a per capita tax of $1.00, and such of the regular revenue as might be needed. The general assembly was authorized to provide for a local county or district levy, where the State's funds might be inadequate. The legislature of 1868, in keeping with the educational provisions of the constitution, created the necessary machinery for a public school system, such as superintendent of public instruction, a state board of education, circuit and county superintendents, districts and trustees. The two races were to

receive their education in separate schools. The stormy days of reconstruction were not favorable for the operation of the law. The first apportionment of revenue was in 1870. The State was on a scrip basis and this depreciated so that the funds were entirely inadequate to meet the educational demands of the people. In 1874 a revolution in state affairs swept away the carpet bag government, promulgated the present constitution, and in 1875 the general assembly passed an act organizing the present common school system, providing for a superintendent of public instruction, the present district system, county examiners, and revenue to be derived from the following sources: two mill state tax, increased in 1907 to three mills; $1.00 poll tax, and five mill local district levy, increased in 1907 to seven mills. By this time the State had discovered the basic principles underlying the public school system, and the later educational history of the State is merely a story of the application of these principles. For many years the schools were embarrassed for lack of funds on account of the poverty of the State after the war and reconstruction.

Academies and Colleges.

Perhaps the most typical school before the war was the academy. Arkansas had neither a public high school nor a university. Many private academies supported by tuition fees flourished in all parts of the State. Thirteen were chartered by the legislature in 1859 and nine in January, 1861. The principals were usually college graduates; they did a high grade of work, emphasizing culture and character building. Greek, Latin and mathematics were the chief subjects in the course of study. Some of these schools built up a wide reputation and drew students from all sections. They educated many men who later played prominent parts in the affairs of the State. Batesville, Fayetteville, Little Rock, Rocky Comfort, Spring Hill, Sylvania, Fort Smith, Washington, Tulip and Princeton were seats of strong academies. Prior to the foundation of the University of Arkansas there were not many institutions of college grade in the State. Quite a number of seminaries and institutes were incorporated, but they were little more than academies. The institutions that attained highest rank were St. John's College at Little Rock, Cane Hill College at Cane Hill, and Arkansas College at Fayetteville. St. John's College was chartered in 1850 as a Masonic institution. The school emphasized

the teaching profession by imposing an obligation of honor upon all of its graduates receiving gratuitous instruction to teach in the schools of the State at least two years after graduation. Just before the war it was conducted as a military school. The war compelled it to suspend operations. In 1869 it was reorganized, presided over by Prof. O. C. Gray, later a member of the faculty of the University. Prof. W. C. Parham taught the languages. After the Brooks-Baxter war Rev. A. R. Winfield became its president, and in 1879 Prof. R. H. Parham took his place. It later passed out of existence. In 1852 Cane Hill College was organized with the degree-conferring power. Its first president was Robert F. King. He was succeeded by F. R. Earl, who served until the war broke out. James Mitchell, who taught ancient languages, was later a soldier in the Civil War, and for a time taught English and history in the University of Arkansas. The college opened up again after the war and did good work until the University at Fayetteville, a few miles from Cane Hill, overshadowed it.

Arkansas College was chartered in 1852, and was located at Fayetteville. Its only president was Robert Graham, a man of strong personality. Under his leadership the institution won a splendid reputation and drew students from all over the State and even from other states. Gov. Elias N. Conway in his message of 1854 refers to the college as having an enviable reputation and a faculty of ability. Among its graduates were Judge R. B. Rutherford, Dr. B. R. Du Val, Hon. Wm. M. Cravens of Fort Smith, Judge B. B. Battle, for many years on the supreme bench, and White Walker of Fayetteville. In 1862 the college buildings were burnt and with this the life of the institution ceased. It was doubtless the splendid work of this college that prepared the way for the location of the university at Fayetteville. The people of the town and county were educated to appreciate the value of an institution of higher education, and when the location of the university was thrown open to the highest bidder the people responded by a liberal offer.

CHAPTER II.

SEMINARY LAND GRANT.

No other government in the world has been possessed of so large a public domain as the United States. Nor has any other government in the disposition of its public lands been so generous in its favors to education. We are accustomed to think that the general government in its first encouragement of education thought of elementary schools only. Such was not the case. Contemporary with its donation of the 16th section for common schools came its land grants for universities. In the mind of our Revolutionary fathers higher education was as worthy an object of federal bounty as elementary education. This fact is emphasized by some of the early ordinances. May 20, 1785, Congress passed an "ordinance for ascertaining the mode of disposing of lands in the western country," in which it set apart the 16th section of every township for the maintenance of public schools within said township. This is the beginning of that magnificent system of federal land grants for education. Two years later it was enlarged and took the form of a great national policy, which has been consistently carried out ever since. The famous ordinance of July 13, 1787, stated this policy as follows: "Religion, morality and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged." This declaration was a pledge of faith that the general government would foster education. Subsequent history shows that the pledge has been faithfully kept. It is the glory of our country that she had in her infancy a broad statesmanship big enough to lay broad and deep the foundations of the young republic in the intelligence and character of the people. Ten days after the immortal ordinance was passed, its companion, a bill entitled "Powers to the board of treasury to contract for the sale of western lands," carried out the declaration of principle contained in the ordinance. It reserved the 16th section in each township for common schools and moreover set apart two townships to be used exclusively for the support of a university, the lands to be located near the center of the territory,

and the trust to be administered under the direction of the legislature. The last reservation for a university was the first of its kind in the history of the country—perhaps of any country—and began a new policy.

The year 1787 is also marked by a large land sale in Ohio. Congress provided for the sale to the Ohio Company, a New England concern, of 2,000,000 acres in southeastern Ohio, and in the transaction reserved the 10th section in each township for schools, two townships of good land for a university, and the 29th section of each township for religion. About the same time a patent to 248,000 acres in southwestern Ohio was granted to John Cleves Symmes and associates. The same provisions respecting schools, religion and a university appeared in this grant, save that only one township was reserved for the latter purpose. The companies failing to comply with the terms of the contract, the cessions lapsed. This was the situation when Ohio in 1803 came into the Union. Congress applied to Ohio the principles set forth above, and in admitting her as a state reserved for schools every 16th section and three townships for universities, one in each of the two purchases. It vested these donations in the legislature to be applied solely for the purposes named. This legislation, while specific and not pledging the government for the future, settled the main points in our national educational policy. Of the twenty-seven land-grant states, nineteen received two townships for university purposes, four (Alabama, Florida, Wisconsin and Minnesota) received four townships; Mississippi and Ohio three, Tennessee 100,000 acres and Utah 200,000. Such grants were not made to the original thirteen states, nor to the other states in which the public lands were not owned by the United States. The states which have not received seminary land grants are Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Texas, Kentucky and West Virginia.

The Grant to Arkansas.

Arkansas has been a beneficiary of this land grant policy. On February 17, 1818, in providing for the establishment of additional land offices in the territory of Missouri (Arkansas then being a part

of said territory), Congress directed that one township of land on the waters of the Arkansas River within the territory be reserved for the use of a seminary of learning therein. This provision doubtless looked towards the ultimate organization of Arkansas as a separate territory, and was the first step in the direction of founding a university therein. Provision was thus made for the higher education of the people even before separate territorial existence was realized. Nothing further was done in the matter until March 2, 1827. On that date Congress passed an act reserving from sale two entire townships of the public lands in Arkansas, to which the Indian title had been extinguished or might be extinguished later, "for the use and support of a university within said territory, and for no other use or purpose whatsoever." The land was to be located in tracts of not less than one section. One of the townships set apart by this act was to be in lieu of the township described above as having been granted for the same purpose in 1818.

Administration of the Grant.

Soon after the passage of this law Governor Izard, under the direction of the secretary of the treasury, appointed an agent to select and locate the seventy-two sections for the university. Governor Izard, however, died before the work was completed. His successor took up the work where he left off and carried it to completion. In his message to the legislature in 1831 Governor Pope said that he had finished the selections, expressed the opinion that the lands chosen were good, reminded that body that the agents making the selections had not been paid, that his efforts to secure their payment had been in vain, and he therefore advised that the general assembly provide for their payment.

Lands Under Control of Legislature.—The history of the sale of these seminary lands and of the administration of the funds does not reflect much credit upon Arkansas. Its story, however, is a part of the educational history of the State and must be briefly told here. During the territorial days the governor seems to have largely controlled the lands, but after statehood the legislature was responsible for the sale of the lands and the administration of the funds. By an act of Congress March 3, 1833, the governor of Arkansas was

authorized to sell twenty sections and to apply the proceeds to the erection of buildings for the proposed university. Nothing appears to have been done under this act. October 24, 1835, Congress was memorialized by the general assembly to confer upon the latter body complete control over the seminary lands. For some time the legislature had been out of humor with Governor Pope for the manner in which he was disposing of the capitol lands and building the territorial capitol. The members of the general assembly had taken the position that the control of such matters should be left in their hands. They probably entertained the same view regarding the management of the university fund. Congress in admitting Arkansas into the Union granted the request of the general assembly by providing in the fifth section of the compact of June 23, 1836, later accepted by Arkansas, that the two townships granted for seminary purposes should be vested in the general assembly to be applied solely for the purposes of the donation. The capitol situation was reversed in the management of the university lands and funds. Congress had given Governor Pope a free hand in controlling the building of the capitol, and the legislature was powerless; now the legislature was supreme in the control of university affairs, and the governor was compelled to content himself with making recommendations.

The sequel of the two experiments shows that the capitol management by the governor was much wiser than the control of the university funds by the general assembly. However, the governors exercised their prerogative and made recommendations in the premises. Governor James S. Conway, our first governor under statehood, in his message to the special session of 1837, reminded that body that Arkansas had no public institution of learning, and urged that plans for a university be formed at once, and that its construction be entered upon and pushed to completion. He insisted that the State had the means. The general assembly decided to give the governor an opportunity of doing at least something for the university. By an act of December 17, 1838, the governor was made the agent of the State to sell what remained unsold of the seventy-two sections of seminary lands. He could sell in lots of not less than one-half quarter sections. Thirty days' notice of sale must be given and no land could be disposed of at less than $10.00 per acre. The governor, in making sales, was

authorized to receive one-fourth cash, one-fourth payable one year after sale, one-fourth two years, and one-fourth three years thereafter. Purchasers were required to give notes with two good and sufficient securities, interest at ten per cent. The governor was required to deposit all seminary funds with the Bank of the State of Arkansas or its branches to the credit of the university fund. The law was careful to provide that this fund should not be liable for the debts of the bank, and that all profits accruing thereon should be placed to the credit of the fund, which should remain intact until appropriated for the establishment of a university.

Fatal Policy Adopted.—According to the provision of this act, Governor Conway offered for sale February 17 and 18, 1840, all the seminary lands at public auction. Only four eighty-acre tracts were sold, the purchase price being $3,312.00. The governor seems to have been discouraged by this experience. He therefore in his message of November 3, 1840, recommended that the minimum price be reduced to $5.00 per acre, and that where not sold at public auction the governor be authorized to sell at private sale. Among other things the governor said: "No state in the Union feels more sensibly than Arkansas the want of a seminary of learning. The general government, with a desire to diffuse knowledge and learning, has placed sufficient means at our disposal to establish a seminary of learning of the first class." He concluded by saying that the responsibility of applying these land grants, including the 16th section, to the objects of their donation, rests upon the general assembly. But the governor, notwithstanding his good intentions, had suggested the very thing that ultimately defeated the object of the grant, namely, the reduction in the price of the lands. The law of 1838, fixing the minimum price at $10.00 per acre, if carried out, would have realized only $460,800 in all, not allowing for any loss. While such a price would have delayed the sale of some of the lands, yet as they were judiciously selected they were good lands, and with the rise in values which always accompanies an increase in population, they could have been sold for that amount. Besides, reducing the price of such public lands is an old game of the land speculators. If by applying to the legislature they could secure a reduction in the minimum price, they, of course, would not pay a higher price. Arkansas legislators, like those

of many other states, played into their hands and the potential endowment of a great university was sacrificed.

But the governor had recommended the reduction in price, and the legislators were only too glad to pass a law that would add to their popularity with their constituents. Hence, on the 28th of December, 1840, the governor approved a bill, practically a duplicate of the act of December 17, 1838, heretofore analyzed. The material changes were that the minimum price at the first public sale and at all private sales for six months thereafter was fixed at six dollars, for the next six months $5.00, then for six months more $4.00, and after eighteen months at $3.00 per acre, "until otherwise altered by law." The time for payments was extended to five annual installments. Thus not only was the price reduced so low as to defeat the object of the grant, but, moreover, by the clause "until otherwise altered by law," the people were actually invited to call for further reductions. The passage of this act destroyed all well-founded hope for a genuine university. However, Governor Archibald Yell two years later did not seem to realize this fact; for in his message of that year he told the general assembly that that body had at its command in the form of federal land grants ample means for the establishment of colleges and universities as well as a system of common schools. He therefore became eloquent in his appeal for action: "Then let me appeal to you, by the debt you owe your country, by the just claims of morality, religion and of freedom, let not the light of knowledge be extinguished in your hands, but, on the contrary, build to it honorable temples and imperishable altars, that it may be made to descend like the unclouded sun, bright and glorious to your posterity." The trouble with the loquacious governor was that he was not a college-bred man, and had but little conception of what was required for the establishment and maintenance of a first-class university. His talk was mere rhetoric.

Another blow was dealt the proposed university by the legislature of 1842 passing a resolution reciting that whereas private parties had ignorantly entered upon, occupied and improved some of the university lands, said parties were called upon to report the facts to the governor, who in turn was directed to deed the lands to them and to have other government lands selected in their stead. Such legislation was a wanton sacrifice of the State's interests, put a premium on perjury and

encouraged a reckless disregard of whatever rights the State and benevolent causes might have in lands in the future. If these parties had entered upon these lands prior to their selection by the State, no law was necessary for their relief, as their interests were safe-guarded by the preëmption laws; if they occupied them after the government had deeded them to the State, they, and not the State, were responsible. But after this the governors themselves ceased to hope for a university, and their later messages are silent on the subject. The legislators in turn saw the inevitable, and on December 18, 1844, sent a memorial to Congress asking for a modification of the compact between Arkansas and the federal government regarding the seminary lands, so as to permit Arkansas to apply the proceeds of the sale of said lands to the support of the common schools. On July 29, 1846, Congress granted this request by authorizing the general assembly to appropriate the seventy-two sections for the benefit of common schools or for the promotion of education in any other manner that that body might deem wise.

This act closes the chapter so far as the proposed university is concerned. It meant that Arkansas was to have no state university until after the Civil War, and that then it was to be crippled for years for want of funds because of the poverty of the State brought on by the war and reconstruction. If the general assembly had adhered strictly to the policy at first adopted of holding the seminary lands at $10.00 per acre and had jealously guarded the fund, a respectable endowment would have accumulated, and a university on a modest scale could have been established before the war. Inexpensive buildings commensurate with the needs of the times could have been provided, teachers employed, and the institution conducted with a small outlay. The university and its endowment would have grown with the growth of the State. This would have been a significant fact in the history of the State. It would have meant a larger statesmanship in legislative halls and executive chairs, a more enlightened citizenship, less provincialism, and a broader policy in the development of the great material resources of Arkansas. The value to the intellectual, moral and material welfare of a state of a strong, vigorous university, articulating itself with every interest, can not be estimated. How heavily Arkansas lost in her failure to regard the university fund as a sacred trust is beyond estimate.

In passing judgment upon our fathers for administering unwisely the school and seminary lands (Arkansas showed no more wisdom in handling the 16th section lands) we should remember that the legislators were inexperienced in such matters, and the people were clamorous to get possession of the better class lands. Then it should be said that but few states in the Union had in 1836 a real public school system. Such as existed were feeble. None of the old states had a state university in the modern sense of the term, though some had them in name. Neither had any of the new states established a worthy institution on the basis of national land grants. Almost without exception colleges of the day were private foundations. Neither was there an effort to articulate such institutions with the public or private schools. There were but few public high schools in the country. Hence, there was educational chaos, no system. The problem of higher education was yet unsolved. The cause was still in the experimental stage and there was no educational Moses to guide. That Arkansas did not use to the best advantage her opportunities is no special reflection upon her: it simply shows that she in common with many other states of her day did not have educational statesmanship. Indeed the maladministration of the educational bounties became so notorious that the general government in recent years has been throwing more restrictions around the grant. For instance, when North Dakota, South Dakota, Montana and Washington were admitted in 1889 Congress fixed the minimum price at which the school lands could be sold at $10.00 per acre.

The manner of administering the grant in a few other states is here given to afford a basis of comparison. Alabama received 46,080 acres for a seminary. The land was sold, part of the proceeds was used for buildings and the remainder was appropriated to aid the state banking system. For the amount thus squandered the State now recognizes an indebtedness to the university, upon which an annual interest of $36,000 is paid. Missouri received two townships, sold the land before the university was founded and realized $222,000. Of this sum $122,000 is invested in state certificates of indebtedness at six per cent interest and $100,000 at five and one-half per cent. The interest is applied to the maintenance of the university at Columbia. The State of Michigan sold the seminary lands and realized $545,964.

On this sum the state pays to the university annual interest at seven per cent. Many other states like Ohio, Illinois and Wisconsin administered the lands poorly. Minnesota, Kansas and Nebraska profited by the experience of other states and good results have come of their administration of the grants. The action of Alabama in reimbursing the university for the money squandered on the banking system suggests an awakened sense of public obligation that might well be followed by other states that wasted the grant.

Later History of the Seminary Fund.

On Dcember 23, 1846, the general assembly constituted the state land agent as the agent of the seminary lands, and authorized him to sell them at private sale. The price for the first year was fixed at $4.00 per acre, for the second year at $3.00 and thereafter at $2.00. The purchaser was allowed five years to make final settlement. An act approved January 5, 1849, provided for the distribution of the proceeds of the seminary and saline lands among the several counties in proportion to the number of free white children between the ages of ten and twenty-one for the use of the common schools. It was to remain a perpetual fund. It was made the duty of the county treasurer to invest it in productive securities, and to distribute the interest among the school districts of the county. No part of the principal was to be expended.

The sales of the seminary lands up to 1850 were as follows:

By Governor John Pope	1,734.36 acres.
By Governor James Conway	320.00 acres.
By Governor Archibald Yell	5,661.34 acres.
By land agent	9,081.51 acres.
Total	16,797.21 acres.

On October 31, 1837, State Treasurer Wm. E. Woodruff reported to the credit of the fund $2,124.53, of which $72.20 was in cash, the balance in the form of notes. On October 1, 1840, there was in cash $1,215.92 to the credit of the fund. The governor's message in 1842 reported the total seminary fund at $29,652.25, of which $2,188.40 was cash, the rest in notes. October 1, 1852, there was distributed

among the counties for school purposes $17,105.84 of the seminary fund. The governor's message for 1852 gives these facts about the fund:

Amount located	43,416.69 acres.
To be located	2,663.31 acres.
Amount sold	25,668.85 acres.
On hand for sale	17,478.04 acres.

The total amount received for said lands up to 1852 was $37,319.09; amount still due for same (about) $60,000. The auditor's report for 1854 shows that during the preceding two years $13,578.15 were distributed among the counties and that $6,953.92 remained on hand October 1 of that year. The amount distributed in the next two years was $9,948.82, leaving a balance on hand October 1, 1856, of $2,979.29. During the Civil War and reconstruction nothing much seems to have been paid in to the credit of this fund. The legislature remitted the interest on seminary land notes for the war period. The auditor's report for 1874 furnishes the following information:

To the credit of the seminary fund Oct. 1, 1872	$1,962.26	in scrip.
To the credit of the seminary fund Oct. 1, 1872	36.61	in currency.
Receipts during the ensuing two years	4,522.82	in scrip.
Expended during the ensuing two years	5,780.68	in scrip.
Balance in treasury Oct. 1, 1874	704.40	in scrip.
Balance in treasury Oct. 1, 1874	36.61	in currency.

Later reports continue to show small amounts to the credit of the fund until 1905-06, when the auditor says the last of the seminary lands had been sold.

The extracts given will serve to show that not only was no university founded, but that the common schools received a mere pittance from the seminary land grant. Aside from the low prices at which lands were sold, there were other causes. The failure of the State Bank caused a small loss of probably two or three thousand dollars. Moreover, many notes were never paid. The notes and securities disclose that at times lands were bought by only a few persons who became surety for each other. In 1842 all the names on the notes, including sureties, numbered less than twenty. Secretary of State David Greer, in his capacity as school commissioner, said in

1856 that the school lands were being sacrificed daily by a combination of interested persons. Moreover, it should be remembered that what little money was realized on the seminary lands was distributed among the counties as fast as it came into the state treasury. It then became the duty of the county treasurer to loan it out at interest, taking security. Some treasurers protected the funds by safe loans, others dissipated it by bad loans. What is left of this fund is now merged into the common school fund.

Dress Parade.

CHAPTER III.

LAND GRANT ACT OF 1862.

The nineteenth century has to its credit many achievements, one of the most notable of which was the advancement of science, both pure and applied. The demand for technical as well as for scientific education grew louder and louder with the progress of the century. This demand has taken form, not only in the strong place assumed by pure science in the higher institutions of learning of the country, but, moreover, in the well-equipped schools of applied sciences found in all of our better class universities. The growth of agricultural education is only one of the many forms which popular interest in the applied sciences has taken. The now famous land grant act of 1862, therefore, had behind it deep causal forces and a historical background.

Movement for Agricultural Education.

A pamphlet was published at Albany in 1819 on "The Necessity of Establishing an Agricultural College," to be endowed and controlled by the State of New York. The Agricultural Society of the State took up the question of agricultural education and agitated it for the next quarter of a century. Experiments in private agricultural schools were made in different parts of the country, but not with marked success because they were not conducted on right principles. A petition with 6,000 signatures, praying for the establishment of agricultural schools, was presented in 1838 to the legislature of New York. In 1844 the school superintendents of that State expressed the opinion that "the elements and scientific principles of agriculture should be taught in all schools." Governor Fish in 1849 recommended the establishment of an agricultural college. Largely through the efforts of John Delafield the legislature of New York passed an act in 1853 providing for the establishment of an agricultural college. Nothing at the time came of the act because of the death of its chief promoter and the failure to appropriate for it. However, Mr. Delafield

inspired with his enthusiasm for agricultural education Rev. Amos Brown, who became one of the chief assistants of Senator Morrill in securing the passage of the land grant act of Congress.

The State of Michigan has the credit of having established the first agricultural college in the United States. The act was passed in 1855, locating it on a farm of about 500 acres near Lansing. The college was opened two years later. The Maryland Agricultural College, located on a farm of 400 acres, was chartered in 1856. It was supported by both state and private aid. It was opened to students in 1859. The Minnesota Agricultural College was incorporated in 1858, but had not opened when the Morrill act became law. Iowa, Illinois and Wisconsin had taken steps looking towards the establishment of agricultural colleges. In 1854 Pennsylvania incorporated the "Farmers' High School," and 1862 changed it to the "Agricultural College of Pennsylvania." The school was supported by private and state aid. It was opened in 1858. This was the most complete school of agriculture in the United States in 1862. It offered a four years' course of study, on the completion of which the B. S. A. degree was conferred. This brief summary of the history of agricultural education up to the time of the passage of the land grant act shows a growing interest in the subject and suggests that doubtless the states would have done much for the cause independent of assistance from the general government.

The cause of agricultural education received its most powerful stimulus from the federal government. The now famous land grant act of 1862 marks an epoch not only in the cause of education in general, but of agricultural education in particular. Without it the cause would have been delayed for decades. To Justin S. Morrill of Vermont more than to any one else is due the credit for the general government's action. However, federal aid had been suggested earlier. While it probably had no national influence, yet it is a matter of local interest that Governor Archibald Yell, in his message to the general assembly in 1842, after speaking of the importance of agriculture and of the spirit of improvement then abroad, he urged that Arkansas should encourage the movement "until the farmer shall have taken that high stand in society and government, to which his honorable and useful pursuits so well entitle him." He then added: "With a

view to perpetuate our happy form of government, and to advance the great interest of the laboring classes, industry and education should be in some way interwoven; and I know of no mode better calculated to suit the conditions and character of our people than agricultural schools based upon federal donation of the general government." Here in Governor Yell's message of 1842 is a recommendation of the plan actually incorporated in the Morrill act of 1862.

The Bill Before Congress.

December 14, 1857, Mr. Morrill* introduced into the lower house of Congress a bill "donating public lands to the several states and territories which may provide colleges for the benefit of agriculture and mechanic arts." It carried an appropriation to each state of 20,000 acres of public lands for each senator and representative from the state in Congress. The bill met with opposition and was referred to the committee on public lands instead of the committee on agriculture, of which Mr. Morrill was chairman. A majority report adverse to the measure and a minority report for it were made April

*Justin Smith Morrill was born at Strafford, Vermont, April 14, 1810. He was the eldest of a family of ten children. He lived on his father's farm and attended the district school. His training here was supplemented by a term in Thetford Academy. His school education ended when he was fourteen years old, and he was employed as clerk in the village store. After working there two years he went to Portland, Maine, where he filled a similar position. In 1830 he returned to his native town and was made a partner of his former employer. He remained here for fifteen years, when, having acquired a moderate fortune, he retired from business. He remained in retirement only nine years when he was called to serve his state in Congress. In 1855 he began one of the longest congressional careers recorded in the annals of Congress. He served as representative for twelve years, when in 1867 he was sent to the senate. Senator Morrill served his state in this capacity for thirty-two years. During this time he is said to have delivered one hundred speeches and to have introduced over two thousand bills. The three most important bills of which he is said to have been the author are the tariff bill of 1861, measures for the construction and modification of public buildings, and the land grant act of 1862. The last named is that for which he is the most famous. The fact that in the midst of a great civil war he turned his attention to education is evidence of the broad sanity of the man. In 1877 when Senator Sherman resigned as chairman of the finance committee Mr. Morrill was chosen to succeed him. He represented the State of Vermont until his death in 1899.

15, 1858, after an unwarranted delay of four months. Five days later, after debate, the bill passed the house after an able speech by its author. He urged upon the members the broadest principles of public policy. The public lands, he said, being common property, should be applied to some national purpose comprehensive enough to benefit all sections of the country. He reminded them that Congress all through our history had used the public lands to promote primary and higher education, and he was sure that no other use of them would so advance the welfare of the great masses of the people as to devote them to the problem of applying the discoveries of science to agriculture, mechanics and other industrial arts. In the senate the bill went to the committee on public lands and was reported back without recommendation. Congress adjourned before final action.

At the beginning of the next session an attempt to bring the bill up met with determined opposition led by Pugh of Ohio, Clay of Alabama, Jefferson Davis of Mississippi, and Rice of Minnesota. In its discussion the states' rights issue was brought prominently to the front, as the following extract from Senator Clay's speech shows: "The federal government is the creature of the states and is dependent upon them for its organization and operation. All its powers are subordinate to the states from whom they are derived. The states are in no wise dependent on the federal government for their operation, organization, support or maintenance. I stand as an ambassador from a sovereign state, no more subject to the control of the federal government, except in a few instances provided in the constitution, than any foreign and independent state. This bill treats the states as agents instead of principals, as creatures instead of creators, and proposes to give them their own property and direct them how to use it." Senator Rice of Minnesota "looked upon the success of this measure as bringing a slow, lingering death to Minnesota." On February 1, 1859, the bill passed the senate by a majority of three votes.

The President's Veto.

President Buchanan returned the bill to the house with his veto. This he did on both expediency and constitutional grounds. He reminded Congress that the government was in bad financial condition, and that this act would complicate matters by diverting from the

treasury the revenue derived from the sale of public lands. He further urged that there was then outstanding bounty land warrants of almost 12,000,000 acres for the benefit of old soldiers, and that this act would glut the market with land script, thus running down the price of land and doing an injustice to the old soldiers as well as an injury to the treasury. He thought that the measure was vicious because it would disturb the normal relations of state and federal governments, tending to cause the states to fall into the habit of looking to the general government to finance state institutions. Moreover, the president felt that the measure was undemocratic in that it would encourage land speculators to buy up large tracts of land and discourage the purchase of small farms by actual settlers. After adding that Congress had no power to enforce the terms of the grant, and that it would create in the several states rival institutions with existing colleges, he said the act was unconstitutional because Congress had no power to appropriate for education. He insisted that education was not among the enumerated grants of power in the constitution, that it was a recognized state function, and that for Congress to appropriate for it would break down the barrier so carefully erected in the constitution between state and federal authority. Moreover, he did not think that the fact that the endowment of education proposed in the bill was to be derived from federal lands altered the case. He said that Congress would be under the same constitutional limitations in appropriating the proceeds of the public lands as it was in appropriating funds derived from taxation. The veto killed the bill.

The Fight Continued.

The friends of the bill were not discouraged. Mr. Morrill, however, knew that so long as President Buchanan was in office there was no use in bringing the bill forward. But upon the assembling of the first regular session of Congress after President Lincoln was inaugurated, Mr. Morrill, December 16, 1861, introduced the bill again in the house of representatives. It is a testimony to the balance, the serenity and the faith of Mr. Morrill that he should, in the midst of the excitement of war, have turned his attention to the consideration of a great question of constructive statesmanship. However, he found the house in no mood to consider the bill, and so on May 2, 1862, he had the

same bill introduced into the senate by Senator Wade of Ohio. The measure met with unsuccessful opposition again, Senator Lane of Kansas going so far as to declare it the most iniquitous bill ever introduced into Congress. It passed the senate June 10 by a vote of 32 to 7. In the house Mr. Morrill was having trouble, for the committee on public lands had reported the bill adversely, and Mr. Morrill had made an unsuccessful attempt to get leave to introduce a substitute bill. However, opposition seems to have largely given away when the senate bill came over to the house. Seven days after it passed the senate Mr. Morrill succeeded in calling it up and in securing its passage by a vote of 90 to 25. The measure was not debated in the house, though attempts were made to amend and delay it. On July 2, 1862, the bill became a law by the approval of President Lincoln.

But few people in the country outside of the author had any adequate appreciation of the scope of the new law. Indeed, Mr. Morrill himself did not see the far-reaching and revolutionary character of the measure. The opposition to the bill was largely based upon a failure to understand its spirit and plain provisions. The field upon which Congress entered in this act was new, and it is a matter of no surprise that the opinions expressed in the debate were crude. The bill and its passage are probably due to an idea then beginning to take hold of the people of the wonderful possibilities of science. There was a vague ill-defined feeling that education should be more practical and better related to the daily tasks of life. Mr. Morrill's claims to statesmanship lie in his clear interpretation of this spirit and accurate incorporation of it into law. Perhaps the fact that he was not a college man enabled him to free himself from the prejudices of the traditional education, and to appreciate the thoughts, feelings and needs of the great masses of the people.

Analysis of the Act.

Section one of the act granted to each state public lands equal to 30,000 acres for each senator and representative in Congress to which the state was entitled under the census of 1860. Mineral lands were excepted from the provisions of the act. Section two provided that the land should be apportioned to the states in subdivisions of

not less than quarter sections; that where a state had sufficient public lands subject to sale at private entry at $1.25 an acre, its quota should be selected from public lands within its borders; that where otherwise, the secretary of the interior was instructed to issue said state land scrip to the amount in acres for the deficiency of its distributive share. A state receiving land scrip was not allowed to locate the same within another state; on the contrary it must sell the same to private parties who were authorized to locate the claim on any of the unappropriated public lands subject to private entry, provided that not more than a million acres be located in any one state. Section three protected the fund against diminution by providing that all expenses of management of said lands, of taxes thereon, and all expenses of administering the funds derived from their sale should be paid by the states receiving the same. Section four required that all funds derived from said land or scrip should be invested in good securities, yielding not less than five per cent on their par value, and that this investment should constitute a perpetual fund, the capital of which should not be diminished except as provided in the act. It was made the sacred duty of states receiving the benefit of the act to appropriate all of the interest accruing upon said fund "to the endowment, support and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and mechanic arts, in such manner as the legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

Section five prescribed several fundamental conditions upon which a state before becoming a beneficiary was required to give legislative assent. In the first place each state must agree to replace any part of the fund thus received, should it ever be lost or diminished; it must also pledge itself to apply regularly all of the interest on this fund to the purposes named in the fourth section of the act, provided that not to exceed ten per cent. of the amount might be expended for sites or experiment farms where authorized by the legislature. However, no part of the fund under any circumstances could be applied to the purchase, erection or repair of buildings. In the next place a

state desiring to claim the benefit of the act was required within five years to provide at least one college as defined by the fourth section, or thereby forfeit its share of the grant, and moreover, should refund to the general government all moneys received from the sale of said lands or scrip. It was further stipulated as a condition of the grant that there should be sent to the secretary of the interior and to all colleges endowed by this act, an annual report of the progress of the college, setting forth in particular improvements and experiments, with costs and results, and other matters, including statistics of industrial and economic activities within the state. While engaged in rebellion against the general government states were not entitled to the benefits of the act. It was further conditioned that a state, through an act of its legislature, must express its acceptance of the grant within two years from the date of the approval of the bill by the president.

Meaning of the Act.

Such is a brief analysis of the main provisions of the land grant act. It will be noted that the purpose of the act as expressed in section four is broad and comprehensive, worthy of the great government that was thus inaugurating a new era in the educational history of the country. This purpose is well expressed by the author of the bill, when he was discussing the subject before the lower house. Among other things Mr. Morrill said: "It proposed to establish at least one college in every state, upon a sure and perpetual foundation, accessible to all, but especially to the sons of toil, where all the needful sciences for the practical avocations of life shall be taught; where neither the higher graces of classical studies, nor the military drill our country now so greatly appreciates, will be entirely ignored, and where agriculture, the foundation of all present and future prosperity, may look for troops of earnest friends, studying its familiar and recondite economies, and at last elevating it to a higher level, where it may fearlessly invoke comparison with the most advanced standard of the world."

The purpose of the act in one sense may be said to be narrow in that it emphasized agriculture and mechanic arts more than other subjects and interests. It may be urged that an educational policy worthy of a great nation should be more comprehensive, that it should

be cosmopolitan. But the circumstances under which the act was written explain the seeming narrowness of the measure. At that time, what may be termed general culture education, did not need special emphasis; it was sufficiently, even though narrowly, emphasized by the classical colleges of the time scattered all over the country. The United States was a great agricultural and industrial country. Yet agriculture and mechanic arts were receiving practically no attention in the educational systems of the day. For instance, outside of West Point and Annapolis, there were not half a dozen institutions in the United States offering advanced instruction in civil engineering, and none whatever giving instruction in electrical engineering. For the young man looking to mining engineering his only hope lay in practical apprenticeship. There was probably at the time not a physics laboratory in the country and only theoretical physics was taught.

The natural sciences were in about the same condition. They needed the emphasis of some powerful influence. The government of the United States, with its power and prestige, gave to the cause the stamp of its approval and support. In doing so, however, it recognized other subjects; in making special mention of agriculture and mechanic arts, it thereby emphasized them, but did not exclude other subjects. The fact is, on the basis of the grant, without violating any of its provisions and in perfect accord with the endowment, the broadest institutions of learning on the continent, yea, in the world, are founded. Almost every conceivable interest of man and subject are investigated and taught in some of the land grant colleges. It is also noteworthy that agriculture and mechanic arts are better developed and taught in those colleges that are broadest and most cosmopolitan; that is, that have all departments of a great university, rather than in those institutions which confine themselves to the special subjects emphasized in the congressional act. In other words, applied sciences are better developed in the atmosphere of a genuine university as defined by Ezra Cornell—"an institution, where any person can find instruction in any study."

The cosmopolitan universities, into which some of the land grant colleges have developed, are in perfect harmony with the purpose of Mr. Morrill. This is clearly set forth in one of his later public utterances: "It is perhaps needless to say that these colleges were

not established or endowed for the sole purpose of teaching agriculture. Their object was to give an opportunity for those engaged in industrial pursuits to obtain some knowledge of the practical sciences related to agriculture and the mechanic arts: such as they could not then obtain at most of our institutions called classical colleges."

Obviously, not manual but intellectual instruction was the paramount object. It was not provided that agricultural labor in the field should be practically taught any more than the mechanical trade of a carpenter or blacksmith should be taught. Moreover, it was a liberal education that was proposed. Classical studies were not to be excluded. The act of 1862 proposed a comprehensive system of higher education, not limited to a superficial and dwarfed training, such as might be had at an industrial school, nor a mere manual training, such as might be supplied by a foreman of a workshop or by the foreman of the experimental farm. Mr. Morrill used to say that the convenience of an index clerk was responsible for the name "agricultural college," being commonly used in referring to the institutions brought into existence under the act of 1862. The breadth of the author's view is emphasized in the title of a supplemental bill introduced by him December 15, 1873, which read "National colleges for the advancement of general scientific and industrial education."

The land grant act was later amended. The occasion for the amendment was that the Civil War had made it impossible for the southern states to comply with its provisions in time to become beneficiaries. For their benefit it was amended July 23, 1866, extending the time within which states might comply with the terms of the act. They were allowed three years from the passage of the amendatory act to express their acceptance, and five years from the date of filing said acceptance to provide the college required by it. It was further stipulated that territories becoming states could receive the benefits of the act by filing acceptance of its provisions within three years from the date of their admission into the Union and by providing the college required within five years after said acceptance. Under this amendment Arkansas and other southern states became beneficiaries of the act.

CHAPTER IV.

ORGANIC ACT OF THE UNIVERSITY.

When the land grant act was passed Arkansas was in the throes of the Civil War, and, of course, the people were in no humor to consider the measure. Besides, in order to secure the benefits of the law they would have to lay down arms, make peace and submit to such terms as Congress might prescribe. This they would entertain no thought of doing in 1862. Hence, the question was not even considered. However, physical conditions largely control human actions. As the war progressed the Federals gained ground in Arkansas. By September, 1863, they controlled the Arkansas River and the territory north of that stream. At once people loyal to the Union took steps to organize a loyal state government. Early in 1864 an irregular convention met in Little Rock, framed a constitution and submitted it to the people for ratification. It received almost the unanimous support of those voting. According to its provisions loyal state officials were elected, and a new state government was started off with Isaac Murphy as governor. Until the close of the war it divided with the confederate state government at Washington, in southeast Arkansas, the jurisdiction of the State, the loyal government controlling north of the Arkansas River.

Arkansas Accepts the Land Grant Act.

Act of 1864.—It was this loyal government of 1864 that took the first steps toward securing the benefits of the land grant act for Arkansas. As early as April 29, 1864, John I. Taylor, representing Phillips and Monroe counties in the senate, introduced into that body a series of resolutions, reciting, that, as the congressional act of July 2, 1862, is well known to the members of this general assembly, as a state in order to enjoy its benefits must accept its provisions within two years of its passage, and as Arkansas is excluded at present from sharing its benefits because of the existing rebellion, this legislature hereby express on behalf of Arkansas her high approval of said donation, and pledge that, so soon as Congress will permit her to do so,

the State will comply with the conditions of the act. The resolution further suggested to our representatives in Congress that they use their efforts to secure an extension of time for acceptance of the act by the State of Arkansas. Mr. Taylor here presumed that Congress would seat our senators and representatives recently elected. As a matter of fact they were refused their seats and Arkansas had no representation in that body until the reconstruction acts of Congress were put into operation in the State in 1868. Mr. Taylor's resolutions were favorably received, but on the following day he withdrew them. The significance of this action appeared when on the same day he introduced a bill "signifying the assent of the general assembly of Arkansas to an act of Congress in relation to donations of public lands." On maturer consideration he decided that a wiser course would be to presume that normal relations existed between the loyal state government of Arkansas and the general government, and that as the two years for acceptance of the grant had not expired, Arkansas should pass an act in the ordinary course of legislation complying with the conditions. The bill met with a favorable reception and passed both houses without a dissenting vote. The act was approved May 11, 1864. It gave the assent of the general assembly to the donation and pledged the faith and honor of the State to the faithful performance of all the conditions required. It furthermore directed the secretary of state to transmit a copy of the act to the secretary of the interior.

Act of 1867.

In 1866 the general assembly convened again. In the meantime no further steps had been taken to make the college land grant effective in Arkansas. Governor Murphy, in his message, transmitted to the legislature November 8, 1866, incorporates as a part of the message an address to the people of Arkansas dated May 10, 1865, which contained a strong paragraph on education, including his recommendations relative to the land grant act. He said the State by the act of May 11, 1864, had complied with the condition requiring acceptance within two years. He entertained no doubts about the legality of the act, as the state government was performing all the functions common to such a government, and was so recognized at Washington. The only thing left for Arkansas to do to receive the

benefits of the grant according to Governor Murphy was to provide a college within the prescribed limit of five years. To do this would require quick action on the part of the general assembly. The governor not only appreciated the importance of a good system of common schools and the value of the old line classical education, but moreover, was in sympathy with schools of agriculture and of technology. He looked upon "the educated and refined cultivator of the soil as a gentleman occupying the most elevated and independent position in society." He therefore urged upon the general assembly to establish an agricultural college as a part of a general scheme of public education.

This part of the governor's message was referred to the committee on state lands in the senate, and on November 24, 1866, William Hicks, senator from White and Jackson counties, chairman of said committee, reported a bill signifying the assent of Arkansas to the land grant act. It will be remembered that on July 23, 1866, Congress had amended the act of 1862, extending the time within which states might accept the grant to three years from the date of the amendatory act, and the time for providing a college, to five years from the date of filing the acceptance. It was in accordance with the provisions of this act that the new bill to accept the grant was proposed. When introduced the bill contained a paragraph declaring that Arkansas was not in rebellion or insurrection against the government of the United States, and was therefore entitled to the benefits of the act. This provision was doubtless suggested by the continued refusal of Congress to admit our representatives to seats in that body. The clause was later stricken out. As amended the bill passed both houses and became a law January 31, 1867. In addition to accepting the grant in general terms as did the act of 1864, this law went into details, promising to replace in case of loss any portion of the fund or interest derived from the land grant, to allow no part of the fund to be used on buildings, to provide at least one college within five years, and to make the required annual reports. It is perhaps fortunate that the general assembly decided to pass another act of acceptance and not to stand with the governor on the proposition that the act of 1864 was sufficient. While the constitution and government of Arkansas in 1867 were the same as in 1864, yet the war was still in progress and a large part of the State was still in rebellion in the latter year.

But the Murphy government was not permitted to carry out its plan of establishing the university. It had shown its purpose in two acts of the legislature accepting the grant and in a positive utterance of the governor. In less than two months, however, from the passage of the last act of acceptance, the first reconstruction acts of Congress were passed. They overturned the Murphy government and supplanted it with military rule, Arkansas being made a part of the fourth military district under General Ord. It is true that a part of the civil officers of the State, including Governor Murphy himself, were permitted to exercise their functions, yet they were subject to the paramount authority of the military. According to the provisions of the reconstruction acts, a constitutional convention convened at Little Rock in January, 1868, and framed a new constitution, creating a new state government presumably more loyal than the Murphy government. Under this constitution the reconstruction government controlled the State for six years. The article in the constitution on education contained a clause making it the duty of the general assembly, as soon as funds were available, to "establish and maintain a State University with departments for instruction in teaching, in agriculture and the natural sciences."

Act of 1868.

The general assembly, at its first session under the new constitution, took up the university question and passed an act approved July 23, 1868, entitled "An Act Establishing an Industrial University." It pledged the faithful application of the income from the endowment to the legitimate expenses of the institution, and forecast in a general way what would be included in the course of study. It provided that in addition to the usual course of study prescribed in universities there should be taught "agriculture, mechanic arts, engineering and military science." The tuition in the university should be as nearly free as possible, and free scholarships were to be provided for the descendants of the soldiers and seamen of the United States in the late war, and one such scholarship for the brightest and most proficient scholar in the public schools of each county. A board of trustees, consisting of the superintendent of public instruction and

one member from each judicial district appointed by the governor, was created.

Individuals, towns, counties, cities and townships were authorized to bid for the location of the university. Counties, cities, townships and incorporated towns through their constituted authorities for the purposes of the act were authorized to subscribe such amounts as they might see fit, and to provide for it by taxation or by the issue of bonds payable in not exceeding twenty years and bearing not over ten per cent. interest. Before such a subscription was complete there must be a petition signed by one hundred legal voters praying for an election to be held to decide upon the proposed bid. The election was to be held and returns made according to the law governing elections. A majority vote was to prevail. The vote taken in accordance with this act was made binding upon the inhabitants of any county, city, township or incorporated town, and the proper authorities thereof might make and enforce any orders for carrying the objects of the act into effect.

The location of the university was to remain open to competitive bids until the first day of the next session of the general assembly. Upon that day the board was required to meet at the capital and make a full report to the legislature. "Upon receipt of the report of the board the general assembly shall, by proper legislation, accept the proposal or bid made in behalf of such location, which shall be the highest in amount and the most advantageous to the interests of education in this State." That practically nothing was done under this act is best shown by the following report of the board made through the superintendent of public instruction at the opening of the legislature of 1871: "In the multiplicity of matters claiming attention, the subject of the report to the legislature had been overlooked until recently, and the provisions of the law of 1868 have been in great part neglected to be carried into effect, the governor not having appointed the members from the several judicial districts in time to advertise propositions from the different parts of the State, so as to be able to make report to the general assembly at the opening of the session. They hope to be able to report fully before the adjournment of the legislature." The governor, in fact, had not appointed the board until December 31, 1870. It consisted of W. M.

Wygant, E. R. Knight, W. H. Gillen, Wm. H. H. Clayton, E. E. Henderson, W. A. Stewart, F. M. Chrismas, David C. Casey, H. A. Millen, and John H. Hutchinson. Only one name, that of H. A. Millen, appears on the first active board.

Organic Act of 1871.

But the board never made a further report, and the general assembly wisely proceeded to rewrite the law on the subject, that of 1868 being crude and incomplete. This effort resulted in the organic act of March 27, 1871, entitled "An act for the location, organization and maintenance of the Arkansas Industrial University with a normal department therein." The state treasurer was made the financial agent to receive the land scrip to which the State was entitled under the act of 1862, and, under the direction of the board of trustees, to sell the same and to invest the proceeds in government bonds. The act created a board of trustees of eleven members, consisting of the state superintendent of public instruction, ex-officio president, and one member from each judicial circuit to be elected by the legislature. In the event of the failure of the legislature to elect, the governor was empowered to appoint the trustees. The board was authorized to form themselves into a body corporate under the general laws of the State and as such to exercise all of the powers of like corporations in the execution of the objects of the trust. A majority constituted a quorum, but a smaller number might adjourn from day to day and send for absent members. The president, upon his own initiative, or upon the petition of three members, could call meetings of the board. The members were allowed their expenses and a per diem of $2.50 each while in the discharge of official business.

The board was authorized to elect one of its members secretary and another treasurer, and to fix a small compensation for the services of each. The treasurer was to be a bonded officer. He was authorized, under the direction of the board, to draw from the state treasury money as needed; provided, that he did not draw or have out at any one time more than $10,000. It was made the duty of the president of the board to make on behalf of that body biennial reports to the governor, setting forth in detail the condition and work of the university, all business transactions of the board and the financial

condition of the institution. Moreover, he was to recommend such legislation as the interests of the university required. The board was clothed with the power to locate, organize and manage the university.

Any county, city or incorporated town was authorized to bid for the location of the university, and to raise the money subscribed either by taxation or by the issue of bonds payable in not over thirty years, and bearing not to exceed eight per cent. semi-annual interest. Where any community desired to bid for the location, upon the prayer of fifty or more voters, the city council or county court, as the case might be, was directed to meet on the first Monday of July, 1871, fix the amount of the bid, and submit the question to the electors, giving at least ten days' notice. The time fixed for the elections to determine bids was the first Monday in August, 1871. A majority cast in favor of the proposed bid adopted it. The returns of all such elections were to be made to the county clerk, and he in turn was required to certify the results of the election to the superintendent of public instruction. All bids must appear in the records of the county or city.

The trustees were to meet on the third Monday in September at the office of the state superintendent to canvass the bids. They were authorized to adopt any means necessary to determine the solvency of the bidders and the character of the places seeking the location. They were furthermore directed, in determining the location, to consider "health, accessibility and other vital interests," also the adaptability of the location to the leading sciences to be taught, the climate and healthfulness of the place, the cost of building and supplies necessary for the institution, and the interest of such beneficiaries as it is intended to aid, and thus considering shall locate according to the highest and best bid."

The Location to be Permanent.

The law sought to make the location final when once fixed, binding alike upon the community and the State. When the board accepted any offer and located the university in accordance with the terms of the offer, "then the liability of such county, city or town shall be irrevocable, and forever fixed and binding." Section six reëmphasized the permanency of the location in rather strong language: "and when

a location is made by such trustees, if made upon and in accordance with such bid, such location, in consideration of the sum so bid, shall thereafter be irrevocable by the State, and all moneys, emoluments, benefits and advantages derived, or to be derived from the donations, grants, endowments, bids, subscriptions, of or from the Congress of the United States, and the act donating public lands to the several states and territories which may provide colleges for the benefit of agriculture and the mechanic arts, approved July 2, 1862, or otherwise; or from the State, or any county, city or town corporation, or individual for an agricultural and mechanical, or normal college, in this State, shall pass to and rest in said State, for the use of said institution so located, and without diminution or division, shall be kept, used and expended for the sole benefit of said university, at the place of such location, and not elsewhere; and while the donations, bids and subscriptions of individuals, counties, cities or towns shall be irrevocable and forever binding upon them, the faith and credit of the State is pledged to carry out this agreement and act on her part."

The interests of the community securing the location were further protected by a requirement, that it should be given first option on the sale of bonds issued by it to secure the university, and by a proviso that it should not be required to pay interest on its bonds for more than one year before the university buildings were erected and the school opened. All property or bonds accepted in consideration of location were made a part of the funds of the university, to be held by the treasurer as financial agent and by him sold or deposited under the directions of the board. Purchasers of city or county bonds issued under this act were protected by a provision requiring the county court or city council to levy an annual tax to cover the interest. Upon a failure to do so it became the duty of any court of competent jurisdiction to compel specific performance. It was further provided that, if there was no bid, the board should proceed to locate the university at such a place as the best interest of the people of the State required.

The act made it the duty of the board to erect university buildings equal in value to all donations received for the location. For the performance of this duty it was given all the powers necessary to

employ architects, to adopt plans and specifications, and to construct buildings. Should the community securing the location not donate as much as 100 acres of land, it was made the duty of the board to purchase not less than 160 acres nor more than 640 acres. As no part of the proceeds of the federal grant could be used for buildings, and as the money that might be derived from the successful bidder for the location would not be available in time for the erection of buildings within the time prescribed by the amendatory act of Congress dated July 23, 1866, the organic act appropriated $50,000 to be expended in purchasing a site, in erecting buildings and in organizing the university. The board was further authorized to employ all professors and officers necessary, to fix their salaries, and make such rules and regulations concerning the government and discipline of the university as it might deem wise. The power to make rules governing scholarships was also lodged with the trustees. Lest the power to perform something vital to the interest of the proposed institution were left out, a sweeping provision was inserted conferring upon the board authority to do anything necessary to give force and effect to the act and to organize completely and put into full operation the university.

Branch Normal.

On April 25, 1873, an act supplementary to the act creating the university was approved. It provided for the establishment of a branch normal college to be under the control of the trustees of the main university. This college was created for the benefit of the colored population, though there is nothing in the act to suggest the fact. It does not contain the word "colored" or "negro." The framers were careful not to recognize in the law the element of race. In selecting the location the board was directed to consider "the interests of the State, and especially the convenience and well-being of the poorer classes." On account of the location of the main institution, it was provided that the branch normal should be placed south, east or southeast of Pulaski County. Hence the law required the normal to be located in the heart of the colored population of the State. The act contemplated that donations would be made for the location and the trustees were directed to receive and apply the same on the purchase of grounds and the construction of buildings. The

branch normal was to be under the same general regulations as was the university. Students were to be admitted to the same courses, upon the same conditions and qualifications as they were at the main institution. It was furthermore made the duty of the board to furnish the college with instructors and professors equal in number and attainments to those in the normal department of the main university, to prescribe the same books, course of study and proficiency required, and to bestow the same degrees and honors as were conferred in the main normal college. All the provisions of the organic act of 1871 respecting the organization, government and maintenance of the university except those inconsistent with this act were to be applied to the branch normal college. The board was directed to proceed with the construction of buildings and the organization of the school as soon as practicable.

Summary.

Such in brief is an analysis of the organic act of the university. The general assembly had undertaken a great task—the problem of organizing a university, of determining the higher educational policy of the State, of laying the foundation of an institution destined to influence largely the history of a great commonwealth. It was not, however, a new problem. Other states had gone on before. It was a question upon the solution of which she might bring to bear the experience of other states. It must be confessed, however, that this experience did not throw much light upon the problem. Most American state universities and all land grant colleges were young, and while some of them have grown into great institutions, that development has been since the organization of the University of Arkansas. They were still in their swaddling clothes in 1871. The country was still in the experimental stage. The fact is, the problem of the American state university had yet to be worked out; it can scarcely be said to have been even typed in 1871. If Arkansas made mistakes in connection with her university, she has had the common experience of mankind in dealing with new questions.

Some things are remarkable for their absence from the organic act. For instance no reference is made to degrees. In fact no law has directly bestowed upon the university the degree-conferring power.

It is noteworthy that no degrees were conferred on the first graduating class. They were merely called graduates and are so listed in all catalogues. Neither does the law say anything about high schools nor did the State at the time have any statute dealing with the subject. Moreover there were the fewest secondary schools in the State and they were private. There were no public high schools except in Little Rock, which established its high school in 1869. A system of good high schools is a necessary basis for a real state university, yet no provision was made for them in founding the University of Arkansas. When the institution was put into operation, however, those in authority regarded the preparatory department as a temporary evil to be gotten rid of as soon as the high schools were sufficiently developed. It is also noteworthy that the act does not attempt to prescribe the course of study, nor the subjects to be taught. It does not even quote the provision of the land grant act on that subject. Neither does it go into details in providing for the organization and government of the university; indeed, it does not so much as indicate the broad outline of its organization. It does not even emphasize agriculture and mechanic arts unless making it the duty of the board to carry on the university "according to the true spirit and intent of the acts of Congress" is construed in that light. The act does not mention them. The normal feature may be said to be emphasized in that it is mentioned in the title of the act, though even it is barely referred to in the body of the law. Moreover the law makers did not say what professorships should be created nor did they fix the salaries of teachers and officers.

A Cosmopolitan University Planned.

All this was wise. Even a provision regarding high schools would probably have been premature. The board was clothed with plenary powers regarding the university. It was authorized to fix the courses of study, to create professorships *ad libitum*, to fix salaries, and to make changes as developments suggested. There is a tradition that Judge Lafayette Gregg was the author of the act of 1871. Whoever the author was, it is creditable alike to him and to the general assembly that passed it. The wisdom of the act lies in its breadth and general character, in the absence of details with respect to organization and

course of study, in the failure of the general assembly to tie the hands of the future by superimposing in advance its solution of university problems. Hence the act gave liberty and opportunity for expansion as future needs suggested. Section eleven illustrates this. After it had enjoined economy upon the board by forbidding the creation at first of professorships not absolutely required, it adds "but they may, from time to time as the finances will allow, and the advancement and necessities of the institution require, fill other chairs, and add to the buildings, furniture, libraries, apparatus and other things proper to the full operation and well being of a first-class *university*." [Italics the author's.] This clause taken in connection with the act of 1868, which was still law, throws light on the purpose of the founders of the university.

With respect to the course of study the act of 1868 provided that there should be taught in the proposed university, "in addition to the usual course of study prescribed in universities, the science and practice of agriculture, the mechanic arts, engineering." Note that agriculture and the industrial arts were to be added to the "usual course of study prescribed in universities." Evidently the founders were not proposing to found merely an agricultural and mechanical college. If further proof of this were necessary, the part of section eleven of the act of 1871 quoted above would afford it. It provides that from time to time additions may be made to the professorships, equipments, libraries and buildings, so as to make it a "first-class university." Here we probably have a key to the purpose of the founders, namely, that the institution should ultimately develop into a general university with all departments of the arts and sciences, both pure and applied. Whether they had such an institution in mind, they certainly framed an act sufficiently broad to base such a university upon. Either view of the case is creditable to the framers. The higher educational needs of all important classes of society should be provided for by a state. Whether it was wiser to supply these wants in one great university or in a number of separate technical and scientific schools for the different classes was in 1871 unsolved. Subsequent experience has shown that the concentration of these schools into one institution is better than segregation. On the side of concentration are economy, efficiency, stronger intellectual atmos-

phere, and broadening and democratizing influences. Segregation into a number of isolated schools means duplication of plants, teachers, and equipments, hence inefficiency; it means accentuation of class prejudices in the industrial world and a lower plane of intellectual life.

In the light of these facts the failure to give prominence to agriculture and mechanic arts in the act of 1871 is perhaps not censurable. If they had in mind the larger university, the interests of agriculture and technology were protected. But even if the failure to emphasize them was because the founders did not appreciate the great value of the applied sciences as we do today, it is still of no consequence, because they laid a sufficiently broad foundation for all interests to build upon. In fact, at that time only the few did appreciate the importance of agriculture and mechanic arts. These departments were weak in practically all American state universities in 1871. Three years later in the University of Wisconsin there were no students in mechanic arts and only thirty-six in agriculture; there were none in either department in the universities of Indiana, California, Minnesota, Missouri, and Mississippi. The State had therefore started to build wisely. The university of today has no complaint to file against those who framed the organic act. They did their work well.

CHAPTER V.

LOCATION AND ORGANIZATION OF THE UNIVERSITY.

The organic act of 1871 created a board of trustees consisting of eleven members, the state superintendent of public instruction, ex-officio president, and ten elective members, one from each judicial circuit to be elected by a joint meeting of the two houses of the legislature. The act passed the house about midnight of the 24th of March, 1871. In the afternoon of the following day, the last of the session, the house and senate met in joint session and elected the following as members of the board of trustees: John E. Bennett, M. A. Cohn, P. H. Young, A. S. Prather, H. C. C. Boteführ, John N. Sarber, A. W. Bishop, E. J. Searle, H. A. Millen, and John M. Clayton. Two of the trustees were members of the supreme bench, John E. Bennett and E. J. Searle; another, A. W. Bishop, a graduate of Yale, had come to Arkansas as an officer of the federal army; another, John M. Clayton, was a planter and a brother of Powell Clayton, who had lately resigned the office of governor, to accept the position of United States senator. Thos. Smith, state superintendent, was chairman of the board. He had come to Little Rock in 1864 as a surgeon in the Union army. He was elected superintendent of public instruction in 1868 and served as such until 1873. In point of ability the board was above the average, though the men had no particular qualifications for the work of organizing and shaping the policy of a university. There was not an educational expert among them. The majority of them were in politics. In general it may be said that those in authority have never seen fit to place educators on the board. Upon a whole men in politics either for themselves or for others have constituted too large an element in the personnel of the university trustees.

The Question of Location Before the Board.

The immediate problems before the board were the location of the university, the construction of the buildings, the organization of the institution, and the administration of the endowment. These were

all vital questions, upon the wise solution of which the future of the university largely depended. The first of these problems was the location of the institution. The organic act threw the question open to competitive bids and fixed the third Monday in September, 1871, as the date and the office of the superintendent of public instruction as the place for the board to meet for the purpose of examining the bids and determining the location. Counties and towns were authorized to vote bonds and offer them as a bonus for the location. In keeping with the requirements of the act the board met at Little Rock, September 18, 1871, all members being present. The trustees elected M. A. Cohn, secretary, and created a committee to which they referred the bids for the location with instructions to report thereon at an early hour. Accordingly, at an adjourned meeting in the afternoon the committee reported the classification of the bids. It found that Washington County had voted one hundred thousand dollars in thirty year bonds, bearing eight per cent. interest for the location anywhere in the county, that the town of Fayetteville in said county had offered thirty thousand dollars in eight per cent. thirty year bonds for the location within the town; that in addition, three citizens had offered lands conditioned upon the location of the university anywhere in the county, namely, David Walker 280 acres, Lafayette Gregg 120 acres and William A. Britton 20 acres, and that in addition the people of Prairie Grove Valley in Washington County offered for the location within said valley 866 acres of land and $7,350 in interest-bearing notes. They furthermore reported that the city of Batesville had voted $50,000 to secure the location of the university. S. H. Nieman of Pulaski County offered one hundred and sixty acres three miles west of Jackson Springs.

Committee Visits Fayetteville and Batesville.

Upon hearing the report of the committee the board fixed the location of the university as a special order for the next day. A second committee consisting of the two members of the supreme court and of Mr. Clayton was constituted to report "the nature and legality of the bids, as well as the solvency of the bidders." At a meeting of the board the following day the committee reported. Its findings were that the forms of law had been complied with in the

Washington County bid, that there were perhaps some irregularities in the bid of the town of Fayetteville, that, as to the solvency of the private parties making donations, the committee had no means of knowing, and that with respect to the bid of $50,000 by Batesville the committee did not find the forms of law sufficiently complied with to establish the validity or solvency of the donation. In conclusion the committee was of opinion that a personal visit to Washington and Independence counties was necessary to furnish the trustees with sufficient information for them to act intelligently, and therefore recommended the appointment of a committee charged with the duty of visiting these counties, of ascertaining more accurately the solvency of bidders, the full status of all bids, and of reporting their findings to the board. The recommendation was adopted and trustees Searle, Bennett and Bishop were appointed to perform this duty. A stronger committee could not have been selected, composed as it was of two members of the supreme court and a federal general who later became president of the university.

The board also took an important step looking toward the proper organization of the institution. By invitation a man styled General Brayman, presumably experienced in educational affairs, addressed the trustees on the Agricultural College of Illinois. Probably growing out of this address the board constituted Millen, Young and Sarber a committee to visit Illinois and Michigan, to investigate the workings of their agricultural colleges, and to report back such information as would assist the trustees here in working out the problems before them. The board then adjourned to meet at the same place October 12 to hear reports from its committees.

Report of the Committee on Location.—The board convened again on October 12 to hear the reports of the committees, but, as there was not a quorum present, it adjourned from day to day until October 16 when all members were present except Trustees Sarber and Millen. The committee to visit Washington and Independence counties made their report. They were gratified at the heartiness of their reception at both places. At Batesville they found that the county records showed that on the first Monday in July, 1871, the county court had ordered an election to decide whether the county court should subscribe $100,000 in bonds for the location of the university. Accordingly an election

was held in fourteen out of seventeen precincts, at which election, of the 590 votes cast, 428 were against and 162 for the subscription. The records of the town of Batesville showed that on July 13, upon the basis of a petition that the town subscribe $40,000 for the location, the town council ordered the submission to the voters of the proposition of a bid of $50,000. At the election held August 7, the vote stood 90 for and none against the proposed bid. The forms of law had been fully complied with. The committee was favorably impressed with the climate, the timber, the quarries of sandstone, limestone and marble, and with the citizenship. Batesville was a growing town with a population of some 1,100 thrifty citizens and would be able to pay off the bonds. The people were intelligent and appreciative friends of the cause of education. They knew the value of the university. Besides the bid of $50,000 by the town, beautiful sites for the institution and private subscriptions in land and money amounting to some $19,000 were offered free of cost to the board.

After an examination of the situation at Batesville the committee proceeded to Fayetteville, where they were given a hearty reception at the court house, to which tickets had previously been issued by the mayor. At this meeting Professor Morgan H. Looney, a high school man of local celebrity, in an eloquent address of welcome urged upon the committee the claims of Washington County. A favorable impression seems to have been made, as each committeeman replied publicly and frankly acknowledged the merit of the claims of the county. General Bishop even went so far as to say that the prospects of the county and town were good.

The members of the committee found that on the first Monday in July the Washington County court, upon the basis of a legal petition, had offered a bid of $100,000 in county bonds payable in thirty years with semi-annual interest at eight per cent, conditioned upon the location of the university. This proposition was submitted to the people of the county on the first Monday in August and was carried by a majority of some 90 votes. The county records were correct and all legal forms had been observed. The county was out of debt, had an assessed real estate valuation of $2,344,622, and was amply able to pay off the bonds. In addition to the county's bid, the town of Fayetteville and the Prairie Grove Valley, both within

Washington County, had each made a subscription conditioned upon the location of the university within their respective borders. The subscription of $30,000 by Fayetteville took the form of thirty year eight per cent bonds regularly voted by the electors, only two votes having been cast against the proposition. The town had a progressive population of some 1,500 inhabitants, was out of debt and could pay off the bonds with ease. The people of Prairie Grove Valley, some thirteen miles southwest of Fayetteville, were alive to the importance of the university and while they had no corporate existence, so that they could issue bonds, nevertheless they made a subscription in lands and notes valued by the committee at $23,265 conditioned upon the location of the university in the valley. The committee found the county out of debt, unsurpassed for healthfulness, free from malaria, and having an abundance of good building material. With respect to accessibility they were not so enthusiastic. They reported that Fayetteville being north of the Boston mountains was reached by a tedious trip by stage 55 miles from Van Buren and 165 miles from Lewisburg, near where Morrilton now stands, then the terminus of the Little Rock and Fort Smith railroad. Steamboats ran up the river as far as Van Buren and it was supposed that the railroad would be completed to that place within a year. It is noteworthy that the committee returned to Little Rock by St. Louis. In going that way the members enjoyed the privileges of a railroad all the way except a stage trip of 50 miles from Fayetteville to Neosho, Missouri. The committee expressed no choice between Prairie Grove and Fayetteville, but instead advised, if Washington County should be selected as the location, that the two competing communities in the county be allowed to work out their bids and that later investigations determine as between them the exact location. The report of the committee was received and filed.

Washington County Chosen.—On the following day Judge Bennett offered the following resolution:

"WHEREAS, The county of Washington, State of Arkansas, has, in due form of law, agreed to issue $100,000 in thirty-year bonds of said county, for the benefit of the State Industrial University, and that we as a board have assurances of a tangible nature that we shall receive

from $25,000 to $30,000 more either in Fayetteville bonds or personal security; therefore be it

"*Resolved*, That the bid of Washington County, Arkansas, in bonds, and the bid of Fayetteville, within said county, together with all the subscription and donation made by private individuals, is hereby accepted as a consideration in part for the locating of the Arkansas Industrial University within Washington County, Arkansas,

"*Resolved*, That the Arkansas Industrial University be and the same is hereby permanently located within the limits of Washington County, Arkansas."

Trustee Cohn offered as a substitute for the above, a resolution proposing to locate the university at Batesville, reciting as reasons therefor the bid of the town, the price of building materials, and the accessibility of the place. On motion of Judge Searle the final vote on the location was postponed until the afternoon. Upon reassembling, after the transaction of other business, the question of location was taken up and discussed at length. On Trustee Cohn's substitute motion the vote stood: Yes, Cohn and Young—2. No, Bennett, Prather, Botefuhr, Bishop, Searle and Clayton—6. Absent—Sarber and Millen. The vote then recurred upon the original resolution of Judge Bennett to locate the university in Washington County. It "was unanimously adopted, all the trustees present voting in the affirmative." "Whereupon," continues the minutes of the board, "it was declared and ordered that the Arkansas Industrial University be permanently located in the county of Washington." At the same meeting of the board that fixed the location, a committee on grounds and buildings was created and charged with important duties. Besides being empowered to decide upon all plans and proposals for the exchange, repair or improvement of buildings, the committee was given "the power to secure a favorable site within the county designated for location, and to procure all necessary buildings, by rent or otherwise, in order to get the university into operation within the time provided by law."

Fayetteville Secures the Location.—In Washington County there were two rival communities competing for the location. Their bids were not far apart, that of the town of Fayetteville being $30,000 in

bonds and that of Prairie Grove Valley some $23,000 in notes and lands. The Fayetteville *Democrat* was urging upon Fayetteville the importance of bestirring herself, else Prairie Grove might capture the prize, reminding the people that when "Greek meets Greek, then comes the tug of war."

On September 2 there was a well attended meeting of the citizens of Prairie Grove Valley at Viney Grove for the purpose of taking steps to secure the location of the university in that valley. Resolutions were adopted inviting the committee of the board to visit the valley and calling their attention to its fertility, healthfulness, proximity to the center of the county, adaptability for an agricultural college, and its being on the highway of travel between the north and the south. The meeting appointed a committee of citizens and instructed them to convey the invitation of the citizens to the commissioners to visit the valley after they had been "wined, dined, toasted, and bored generally on the subject of the fertilization of the insipid soils" of Fayetteville. They were further charged with the duty of presenting to the committee the "title papers, evidences, and securities of donations given by our citizens."

At a meeting of the board held at Little Rock January 17, 1872, this committee made its first report. For the purpose of selecting a location and of procuring the necessary lands for university purposes the committee met at Fayetteville and began its investigations November 11, 1871. The members went over all available sites in and about Fayetteville and Prairie Grove. They called to their assistance a lawyer to examine the legal status of bids of Prairie Grove. They found that practically all of the bids of Prairie and Viney Groves were irregular and could not have been collected by law, though they were of opinion that the good faith of the donors would probably have made most of them good. However, they found themselves unanimous in the opinion that Fayetteville was decidedly the most desirable place in the county for the university. The committee delivered to city officials for record the choice of Fayetteville November 15. In arriving at this conclusion and in a choice of a site among the many around Fayetteville, the committee seems to have been controlled by patriotic considerations. Their own language in the report is, "Your committee never lost sight of

the fact that the university location and buildings were not to be of a temporary but of the most permanent nature, and if possible is to reflect the good judgment and taste as well as foresight of this board of trustees, and to be a credit to all concerned in the organization of the institution." Guided by this idea the committee selected the magnificent homestead of William McIlroy about a mile northwest of the square, "a location superior to all the rest we have seen and second to none in the State of Arkansas." Subsequent experience attests the wisdom of the committee in the choice of a site. Probably more beautiful grounds could not have been found. It combined elevation, ample room for expansion and magnificent scenery. The site commands a good view of the town and surrounding country. It is 1,452 feet above the sea. The site cost $12,000, the citizens of the town assuming $1,000 of this amount.

Little Interest in the Location.

With respect to the location of the university there was comparatively little general interest throughout the State. The conditions somewhat explain this fact. The Republicans were in control of the state government, whereas the great mass of the people were Democrats. The reconstruction government was unpopular and in the public mind stood for tyranny and oppression. Unfortunately the university proposition was regarded as a child of this government and shared more or less its unpopularity. Partisan feeling ran high and in some cases so sharp that Democrats would have nothing to do with the university. Then too the people were in poverty and many counties and some towns had been run deeply into debt by the new regime for railroad and other bonds. Hence the small interest in the university location. Even in Washington County there was but little interest and the vote was small. But little appeared in the local papers about the matter. Judge Lafayette Gregg, a member of the supreme court, is largely responsible for the interest of the people of Fayetteville. Upon the basis of petitions the county court and the town council issued the orders submitting the proposition to the voters of the county and town. There was some opposition. Many friends of Cane Hill College feared that the university located in the county would overshadow that institution and ultimately kill it. For

that reason Cane Hill and friends of the college for the most part opposed the proposition. In passing it might be said that their fear was well founded. The university did kill the college.

Another source of opposition was a prejudice against involving the county in debt. Finally some feared that the negro would be admitted to the institution on equal terms with the whites. The orators speaking for the location were told if they would guarantee against the admission of negroes the bonds would be voted. If the fear that the negro would be admitted had been general, the proposition to vote bonds would have been overwhelmingly defeated. Some of the leading citizens of Fayetteville took it upon themselves to canvass the county on behalf of the bond issue the last of July, the week before the election. The more conspicuous of these speakers were Judge David Walker, later a member of the supreme court; J. D. Walker, later a United States senator; A. M. Wilson, a local attorney of prominence; T. M. Gunter, later a member of the lower house of Congress; L. W. Gregg, a member of the supreme court; M. Looney, a local orator and teacher, and C. W. Walker, an attorney. Twelve appointments were made in different parts of the county. The Fayetteville *Democrat* of August 5th contained a short appeal to the people to vote for the bonds. A week later the traditional rooster appeared at the head of the paper, announcing the victory. It reported that the county bonds had been voted by a majority of ninety and that in the town of Fayetteville only two votes were cast against the proposition. The paper was also enthusiastic over the growth in population, the establishment of new industries and the building of railroads that would come in the wake of the university.

Washington County an Educational Center.

It is rather remarkable that a mountain county with a comparatively poor population should have won in the contest for the location. This is probably due to historic causes. The county from an early date and especially the town of Fayetteville had taken the lead in educational matters. It will be remembered that the public school census of 1860 shows that of the 652 common schools in Arkansas, 57 were in Washington County, almost one-tenth. For the same year

Independence reported 21, Pulaski 13, Jefferson 12, and Sebastian 21. For private academies and colleges it was no less noted. In the forties Miss Sawyer, a missionary to the Cherokees, conducted a school for girls at Fayetteville. To this school a woman's missionary society of Boston sent in 1846-47 as a teacher, a Miss James, directly from New York but indirectly from England, who later married Rev. A. J. Marshall, a Methodist preacher at Fayetteville, and who in her autobiography, gives us an interesting account of the social, religious and educational conditions of Arkansas from 1847 to the Civil War. Miss Sawyer had won the confidence of Chief John Ross and other leading Indians and at their request established a female school at Fayetteville where they could educate their daughters among the whites. Young ladies of the town and county attended the school. Mrs. Marshall says, "she (Miss Sawyer) created an educational interest, to which the locating the Industrial University there is largely due." She was a woman of character, energy and will.

Miss James assisted her for a year or so, and in 1848 established a female seminary at Mt. Comfort three miles north of Fayetteville. The Ozark Institute at Mt. Comfort for a number of years prior to the war was a strong school, and some of the strong men of the State were educated there. Cane Hill College was organized in December, 1852, and had a career of usefulness. While the war caused its suspension, the college resumed operation after the war. Some of the prominent men connected with its faculty were Robert King, F. R. Earle, James Mitchell, and J. P. Carnahan. But the most noted institution of learning in Washington County was Arkansas College founded at Fayetteville by Robert Graham in December, 1852. This institution did a high grade of work and deservedly enjoyed a wide reputation, drawing students from all over Arkansas and the surrounding states. Robert Graham at its head was a man of strong personality and succeeded in arousing great enthusiasm for the school. The Civil War brought this worthy school to a close, its president becoming a refugee in 1862, leaving the State with nothing but his saddle bags and a change of linen.

These schools toned up the county intellectually, raised the standard of culture, especially at Fayetteville and Cane Hill, caused

the people to appreciate the value of good schools and prepared the way for a favorable reception of the university proposition. Moreover it is also true that the older communities of Cane Hill and Fayetteville were settled by an unusually strong class of people. When the question of the location of the university came up, Fayetteville had some of the strongest men of the State: Lafayette Gregg, associate justice of the supreme court; David Walker, who had previously been and later became a member of the supreme court; J. D. Walker, who in 1879 went to the United States senate; T. M. Gunter, later a member of Congress and A. M. Wilson, a prominent attorney and subsequently appointed by President Cleveland a member of the Dawes commission. At the time of the location Fayetteville had an excellent academy under the brilliant, though erratic leadership of Morgan H. Looney. These facts help to explain the bids by Washington County and Fayetteville.

Fayetteville at this time had a population of 1,500, real estate assessed at $632,000 and no indebtedness. It had a picturesque elevation of some 1,500 feet above the sea. It was the county seat of Washington County. There were two banks, and it was the center of an active trade. It had two or three churches. It was 50 miles from Neosho, Mo., the terminus of the Southern Pacific. A daily line of four horse coaches ran from Neosho to Fort Smith via Fayetteville, giving it a daily mail.

Pulaski County Fails.

Besides Batesville and Fayetteville there were a few other places that made efforts to bid for the location. The matter was discussed in White and Pope counties, but nothing came of it in either case. In Pulaski the movement reached larger proportions. On May the 18th M. W. Benjamin had a communication before the city council asking that a proposition be submitted to the electors to vote $100,000 in bonds for the location of the agricultural college. The county court upon a petition signed by about a hundred citizens headed by Governor O. A. Hadley ordered an election August 7th on the question of the county issuing $150,000 in bonds, provided that the

university be located within three miles of Little Rock. The city itself through its council submitted to the voters a bond issue of $50,000.

There was, however, decided opposition to the scheme. A "merchant" writing for the July 12 issue of the *Gazette* opposed the proposed subscription by the county and city of $200,000. He was of opinion that we should first lay the foundation by establishing good common schools, that it was criminal in our leaders to be urging this scheme before we had good elementary schools. He spoke of one planter whose school tax was $1,200, but who had no school house in his neighborhood. He was suspicious; he insisted that the university was already sufficiently endowed, that the bond proposition was a swindle and that nobody would be benefited save half a dozen bond sharks. Instead of voting the bonds he thought we should threaten repudiation to those whose pockets were already lined with railroad bonds. He called attention to the fact that work had not begun on the roads notwithstanding the large bond issues, that the people had paid their school taxes in greenbacks, yet the teachers' warrants were hawked about the streets and cross roads at sixty cents on the dollar; the university bonds would sell for about that much. He was also afraid that the trustees would pay a ring of speculators a hundred times the value of the university site.

"Pro Bono Publico" two days later answers the merchant by insisting that the question of common schools has no relation to the university proposition, that the university is to be located and that the question is where. He felt that the law provided sufficient safeguards against fraud. "A plain farmer" also opposed the issue of bonds, because the county and city together were in debt about $700,000 in the form of railroad bonds and outstanding debts. The paper of county and city was away below par. The result of the election showed that the enemies had the advantage. As reported in the *Gazette* the vote in the city alone stood 46 for and 222 against, while in the county at large including the city it stood 78 for and 756 against the bond issue. The *Morning Republican* explains it by saying that there was a general apathy on the question; while the *Gazette* charges it to the radical election laws. It says that many citizens were disfranchised, that others had become of age since the registration,

that some were absent when registration took place, and that still others had moved there since registration. While the people were voting on the university proposition the *Gazette* carried advertisements of the University of Louisiana, the Kentucky University and the University of Nashville.

Doubtless the large vote polled in the county against the university bond issue is in part due to the objections made by "farmer" and "merchant," namely, the bad condition of the town and county financially. They had suffered worse under reconstruction rule than had Washington County. At the same time other factors probably enter to explain the vote. Little Rock had never had the schools that Fayetteville and Batesville had had. The community was probably not as appreciative of the value of a university as were Batesville and Fayetteville.

Organization of the University.

At the first meeting of the board of trustees of the university, two important questions came up for consideration—the location and the organization of the institution. The history of the location has already been traced. With respect to the second question, that of organization, the board wisely deferred passing on questions of policy until they had more information. Accordingly they appointed a committee consisting of Trustees H. A. Millen, P. H. Young and J. N. Sarber, and instructed them to visit the agricultural colleges of Illinois and Michigan, to investigate the organization, management and discipline of the same and to secure architectural plans, specifications and such other facts as might benefit the board in organizing the University of Arkansas, called Arkansas Industrial University until 1899. At an adjourned meeting held at Little Rock October 14, this committee reported. From both institutions valuable suggestions were received, but the breadth and scope of the University of Illinois (it was planning to develop departments in all fields of human knowledge) made a strong impression upon the committee, in fact that institution influenced the policy of the board in a marked degree.

The committee furthermore submitted the plans and specifications of the main building at Illinois and advised their adoption. This recommendation was finally carried out and the main building at

Fayetteville is a duplicate of the corresponding building at Urbana. The plan for dormitories at Illinois, separate and apart from the main building, also appealed to the committee. The essential feature of the plan consisted in the erection, as the needs of the university required, of separate buildings, each capable of accommodating sixteen students and to cost approximately $800. It was urged that the plan was economical and would afford greater security to life and property. This plan was never carried out either in Illinois or in Arkansas. On the basis of their observations at Urbana the committee advised a farm of 160 acres, exclusive of university grounds proper. They further advised the adoption of the Illinois plan of discipline, namely, that of self-government, and its system of voluntary student labor rather than that of compulsion. The co-education of the sexes as practiced at Urbana was recommended. All of these suggestions were adopted.

Committees.—At the same meeting at which this report was received the board created two committees (executive, and grounds and buildings), to each of which was assigned important duties. The committee on grounds and buildings, consisting of A. S. Prather, John E. Bennett, and M. A. Cohn, was charged with the duty of selecting and securing a site in Washington County, and to rent, or purchase or erect the necessary buildings so as to enable the university to open within the time prescribed by Congress. If buildings were to be constructed, the committee should let the contracts by competitive bids. To the executive committee, consisting of E. J. Searle, P. H. Young, and John M. Clayton, was given the general power to act in the absence of the board and to exercise all powers not intrusted to other committees. They were especially charged with the duty of organizing the university, of providing for the several departments, of selecting teachers, of fixing salaries, and of equipping the institution for operation. The committees had only about four months within which time to open the university in order to secure the benefits of the land grant act. The exact time limit was February 12, 1872. As has been noted the committee selected as the site the farm of William McIlroy at Fayetteville. The estate consisted of 160 acres, sixty-five of which were under cultivation, an orchard of four acres, a frame residence of six rooms, and a number of indifferent outbuildings. At

the request of the executive committee the building committee had erected a two-story frame building, twenty-four by forty feet, capable of accommodating about one hundred and twenty students. The building cost $975 and was ready for occupancy January 1, 1872. Moreover the committee advertised for plans, specifications and estimates for the main building. The plans of Messrs. McKay and Helmle of Helena were recommended to the board as best adapted for the purpose of the university. The construction of the building provided for in the plans was not to exceed $120,000. But the delay in the issue of the land scrip under the Morrill act prevented an early construction of the main building.

Buildings.—Meantime the executive committee had been active. The committee, at its first meeting at Fayetteville November 15, 1871, fixed the 22d of January, 1872, the fourth Monday of the month, as the date for the opening of the university. Indeed, this was almost as late as the members could have fixed, because, according to the act of Congress, the university must be in operation by February 12, 1872, or Arkansas would forfeit her rights to the endowment under the land grant act. The committee found on the site erected for the university no buildings that might be used for school purposes except a six-room residence. They at once called upon the committee on grounds and buildings to remodel the residence and to erect a two-story frame structure suitable for temporary use as a school building and capable of being converted into dormitories. These buildings were completed and equipped with stoves, desks, seats, chairs, maps, charts, blackboards and globes at the date fixed for the opening. In June of 1872 the committee felt that the attendance required another building and they therefore called upon the building committee for the erection of another two-story frame structure for temporary school use, capable of conversion into dormitories. This request was complied with and by the opening of the university in the fall it was ready, having been constructed at a cost of $2,219.

Finances.—To enable the board to organize the university the legislature in passing the organic act appropriated $50,000. The finances of the State were in a chaotic condition. Auditor's warrants and treasurer's certificates issued against this fund were sold at a discount ranging from 54 to 83 cents on the dollar. In 1871 no

warrants were sold for less than 80 cents, while in March, 1872, they began to decline. By April they were selling at 70 cents, by June at 60, and by December as low as 54 cents on the dollar. On the whole appropriation the board realized $35,000. Lack of funds embarrassed the trustees at almost every step. The nominal resources at their command were considerable. Secretary Cohn, in a letter to the commissioner of agriculture February 19, 1872, estimated the assets of the institution as follows:

$100,000 of Washington County bonds estimated at 75 cents	$75,000
30,000 of Fayetteville bonds estimated at 85 cents	25,500
400 acres of land at $5.00 per acre	2,000
State appropriation $50,000 estimated at 85 cents	42,500
Total	$145,000

In addition the university had rights to 150,000 acres of college land scrip, which had not been issued. As there was no market for them the board was compelled to hold the bonds of Washington County and Fayetteville in their possession until 1873. They were therefore for the first eighteen months dependent upon the state appropriations and fees from students to meet all bills.

Aim and Purpose.—The executive committee, in their first report to the board, stated at some length the aim and purpose of the university. In this connection they quote from the Morrill act, "the leading object shall be, without excluding other scientific and classical branches of learning and including military tactics, to teach such branches of learning as are related to agriculture and mechanic arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." The committee paraphrases this and declares the "chief aim of the university is the liberal and practical education of the industrial classes." With this in view the university is "to teach such branches of learning as are related to agriculture and mechanic arts, without excluding other scientific and classical studies and including military tactics." They therefore say that the university proposes (a) to teach the sciences and their applications to the arts of life; (b) to conduct experiments in agriculture and horticulture; (c) to provide instruction in military

science; (d) to afford daily manual labor; and (e) to provide the means of a general and thorough education not inferior to that offered in the best colleges. With these general principles for their guidance the committee left the faculty to work out the details of the course of study. They seem to have felt that they had met the requirements of the law and of this plan with respect to agriculture when provision was made for a dozen lectures a year on agriculture and horticulture by Dr. Thurston of Van Buren. The committee appreciated that the courses of study were elementary and incomplete, for they provided them "consonant with the incipient character of the institution." This, they say, will be remedied by the announcement of a more ambitious course in the next report. Respecting the normal department the committee are quite willing to leave the preparation of the course of study to the faculty, after instructing them to prescribe a course equivalent to that of the best normal schools of the northwestern states. The board is reminded that stronger courses would have been provided if the land scrip had been issued.

Beneficiaries.—The government and discipline was turned over to the president aided by the faculty; however, the executive committee retained supervisory jurisdiction. As if principal of the normal department, professor of mental and moral philosophy, and acting president were not enough for one man, the committee further place the university farm under the control of the president. The year was divided into three terms—autumn, winter and spring—of fourteen, thirteen and thirteen weeks' duration respectively. The vacation was to be in July and August, with a recess of one week between terms. The institution was thrown open to the education of men and women alike. The law left the control of scholarships or beneficiaries to the board. Through the executive committee the board provided for 219 beneficiaries and distributed them among the counties in proportion to population. The manner of appointment was peculiar. The governor appointed ten, the superintendent of public instruction five, each trustee four from his district and the circuit superintendent of public instruction the remainder. A beneficiary was appointed for four years. If he were not ready for college classes he might enter the preparatory department but the time spent there was deducted from his four years. A matriculation fee of $5.00 was imposed and in addition all non-

beneficiaries and non-normals who were in the college department were required to pay a tuition fee in the college department of $10.00 per term or $30.00 a year; while if they were preparatory students $7.00 per term was charged.

In the selection of beneficiaries the committee so far had required no further qualifications than moral character and "some proficiency in the ordinary branches of an English education." It was made the duty of the president to continue to notify appointing authorities until their quota had been filled. The committee acted generously in the allotment of beneficiaries to the counties, because they apprehended that comparativly few of those appointed in remote counties would attend for the first few years. The apprehension was verified, for up to the time of the report April, 1873, there were not to exceed sixty or seventy beneficiaries in all departments of the university.

The executive committee found a preparatory department a necessity. Notwithstanding the low entrance requirements established for entrance to the normal and college departments, the educational facilities of but few localities would adequately prepare students for the freshman class. They, however, found in the department a useful professional agency. By permission of the committee President Gates, for the benefit of the normal department, used the preparatory department as a model school, requiring normal students to serve as cadet teachers. This was a wise course which the normal department of later years would have done well to have kept up. The course of study arranged for the preparatory department began with the first reader and the chart. In prescribing qualifications for entrance to the university the committee fixed seven years of age for the preparatory department, provided that no student under fourteen could be a beneficiary. For entrance to the normal department an age qualification of fourteen was required for females, of sixteen for males. Any resident of the State, whether a beneficiary or not, upon entering into a written obligation to teach two years in the public schools of Arkansas after completing the course, was allowed to enter the normal department without paying tuition. Student labor was made voluntary. No student was allowed to work over three hours a day except on Saturday. Compensation, ranging from five to fifteen cents an hour was to be determined by ability to work.

Original Building University of Arkansas, 1872.

CHAPTER VI.

ADMINISTRATION OF THE ENDOWMENT.

The organic act passed by the general assembly of Arkansas in 1871 providing for the establishment of the university, made the state treasurer financial agent to receive from the general government the land scrip due to the State under the Morrill act of 1862. He was authorized to sell the scrip at the highest market price, or if more advantageous to the State, he might exchange the scrip for government bonds directly. This was to constitute the endowment of the university, the principal of which could never be reduced. In the discharge of the duties imposed upon him the treasurer was to act under the direction of the board of trustees of the university. He was not permitted to sell scrip at a lower price nor to buy bonds at a higher price than the board should fix by resolution.

Issue of Land Scrip Held Up.

The trustees were embarrassed in their efforts to organize the university in 1871-72 on account of the refusal of the secretary of the interior to deliver the land scrip after Arkansas had complied with the conditions of the act of 1862. The reason assigned for this refusal was that Arkansas was in arrears with the Chickasaw Indian trust fund, and that it was the rule of the department not to issue the scrip in the case of states owing said fund. Among the securities held by the government in trust for the Indians were $90,000 of Arkansas state bonds (Nos. 11 to 100, inclusive, $1,000 each) issued to the old state bank in 1838. They were six per cent. bonds and Arkansas had not paid the interest on them since July 1, 1842. They had matured January 1, 1868, and the request of the government for their redemption was not heeded. The secretary of the interior therefore proposed to hold the agricultural college land scrip, to which Arkansas was entitled, until the State made satisfactory arrangement regarding this debt. The legal right of the secretary to make such a ruling may be doubted, but that the delinquency of the State justified extreme measures is certain.

On October 18, 1871, the board directed the treasurer, Gen. A. W. Bishop, to make a full investigation into the status of the scrip, and in his report to recommend what steps were necessary in order to secure its early delivery. General Bishop proceeded to Washington, and, after a conference with the secretary of the interior, an agreement was effected by which the latter would deliver the scrip, when Arkansas refunded her bonds held by him in trust for the Indian trust fund, provided Congress would authorize him to receive the refunded bonds of the State. Accordingly a bill was drawn satisfactory to the secretary and sent to Senator Powell Clayton of Arkansas for introduction into the senate. The board sent a memorial to Congress asking for the passage of the bill, reciting that the State had complied with all requirements, that the bid for the location was conditioned on the issuance of the scrip and that further delay would be perilous to the institution. In the meantime James M. Hanks of Helena, Arkansas, a member of the house, introduced into that body another bill directing the issuance of the scrip without reference to the payment of Arkansas indebtedness to the Indian trust fund. This bill passed the house late in the session. In the senate, after an animated discussion it was amended so as to provide that the scrip should not be delivered to the authorities of Arkansas until the State made some satisfactory arrangement by which the bonds of the State held by the government should be refunded. Senator Clayton, in the discussions, assured the senate that the State would not hesitate to comply with the condition of reissuing the bonds. With this amendment the bill passed the senate the day of adjournment, and through the efforts of Mr. Hanks the concurrence of the house was secured at the last moment. The measure was approved December 13, 1872. In accordance with this act the secretary of the interior received from Arkansas May 31, 1873, in exchange for the matured bonds named above, refunded bonds (Nos. 2099 to 2188, inclusive, of $1,000 each) bearing six per cent. interest. Additional bonds were received in lieu of interest due on the matured bonds from July 1, 1842, to January 1, 1874.

When the board met again March 16, 1872, the bill referred to above was still pending, and owing to this fact and financial difficulties confronting them, the trustees directed the building committee to proceed no further with the construction of permanent buildings and

instructed General Bishop, the treasurer, to write a letter to the secretary of the interior and each member of Congress, setting forth the embarrassment of the university caused by the failure to issue the scrip. The letter recited the financial difficulties of the university, called their attention to the fact that the bonds of Fayetteville and Washington County could not be sold to advantage so long as there was any question regarding the land scrip, and added that so far as the State was concerned every condition had been met, the last being the formal opening of the university.

The Board Sells the Land Scrip.

After the passage by Congress of the proposed bill, the board again through the state treasurer applied for the scrip, but technicalities and evasions were still the order of the day, and the scrip was not issued. The patience of the board was about exhausted. But before this the state treasurer, financial agent of the State in the administration of the university fund, had received two bids for the land scrip. On August 22, 1872, the board met at Little Rock to consider the bids. One was from a California firm offering 95 cents per acre for the scrip, the State at its own expense to secure the issue and delivery of the same. The other was from an Ohio company of Cleveland. Its representative, Mr. G. F. Lewis, offered the board 90 cents per acre for the entire lot of 150,000 acres, and proposed to secure at its own expense an early delivery of the scrip, to guarantee such delivery without further expense or trouble to the board, and in three months after the issue of said scrip to pay $50,000 and within twelve months to settle in full for the entire amount.

The board authorized the state treasurer to accept the second bid and to invest the proceeds in United States bonds at the market price on the day of purchase. At this point the secretary gives a lengthy explanation of why the board accepted the proposition of the Ohio company. In doing so he recited the history of the efforts of the board to secure the scrip, namely, the application to the secretary of the interior therefor by the state treasurer, General Bishop's special trip to Washington, the introduction and passage* through Congress

*As a matter of fact the bill did not become a law until December 13, 1872, almost four months after the sale of the scrip.

of a bill directing the secretary of the interior to accept from the State new bonds for the debt to the Indian trust fund, and thereupon to issue the said college scrip to which the State was entitled. Still, he says, the scrip was not issued nor did the board have any assurance that efforts in the future would avail more than those in the past. Moreover, the board was in sore need of money. Besides, they had more faith in the efforts of Mr. Lewis to secure the scrip than in their own. On this point the secretary said: "The success of said Mr. G. F. Lewis in the matter of securing the issue of said scrip seemed the more plausible, he being well acquainted and from the same state with the honorable secretary of the interior."

At the same time there was pending a bill in Congress proposing to give to the states for their agricultural colleges another land grant. Its passage would bring so much land into the market as to run the price down. With the facts as they were it is doubtful if the board could have done better. If the State had been able to appropriate for all the immediate needs of the university, the lands could have been held, located and doubtless sold to much better advantage. For instance, the auditor's warrants issued to the board to cover the appropriation of $50,000 made for the university by the organic act of 1871, were sold from 54 to 80 cents on the dollar. At the time of the land scrip sale the board had to its credit a small amount of this appropriation on which it was then realizing 60 cents on the dollar. For the whole $50,000 appropriation the board received about $35,000 in currency. The calculations of the board that Mr. Lewis would probably be able to secure the land scrip proved correct. Soon after the sale the scrip was delivered and the board's immediate embarrassment was relieved. Just what influence Mr. Lewis and the Ohio company brought to bear upon the secretary of the interior is not known. The board used some ten or eleven thousand dollars of the money derived from this sale for the purchase of the site and experiment farm.

Investment of the Endowment.

On January 25, 1873, the board again took up the question of investing the proceeds of the land scrip sale and instructed the state treasurer to invest in United States bonds. The state treasurer under

the direction of the board of trustees was charged with the duty of investing the endowment, that is, the proceeds of the sale of the land scrip. The organic act of 1871 required the investment to be made in United States bonds. On August 22, 1872, the date on which they instructed the state treasurer to sell the land scrip to the Ohio Land Company, the trustees also directed him to invest the proceeds in government bonds at the market value on the day of purchase. A few months later they were in a different frame of mind. They were considering the bonds of Fayetteville and Washington County as an investment. The day after the vote locating the university in Washington County the board instructed Mr. Bishop, the treasurer, to take the necessary steps to obtain the bonds of the county and such other securities as the board was entitled to in consideration of the location. He was also directed to offer for sale in accordance with the law the bonds at 90 cents on the dollar, and if not sold at that price, to re-offer them at 75 cents. In any case he was not allowed to dispose of over $10,000 worth of them until the next meeting of the board. Accordingly the treasurer applied for and secured the bonds of Washington County the following December.

Fayetteville, however, was not in a hurry about issuing and delivering her securities. He advertised the bonds in Fayetteville, but apparently there were no bidders. The bonds were not placed in the east because the treasurer was advised that there was no market for them. At a meeting of the board held January 21, 1873, the treasurer reported that neither Washington County nor Fayetteville had paid the interest due on their bonds and that the town had refused to turn over to him its bonds, assigning as a reason that they were safer in the hands of the council than they would be in the hands of the trustees. Whereupon the board instructed the secretary to notify the town council and the county court that the bonds of Fayetteville must within thirty days be placed in the hands of the treasurer of the university and that both county and town must at once make provisions for the payment of the interest on their respective bonds. The resolution accomplished its object. Fayetteville delivered her bonds and both county and town voted the tax to pay the interest.

On the 24th of January, 1873, the board of trustees framed and

sent to John M. Clayton, one of their number who was in the state senate, a bill giving the board more liberty in the investment of the funds. The bill became a law March 13, 1873. It authorized the state treasurer as financial agent under the direction of the board to dispose of the land scrip on the best possible terms and to invest the proceeds of said sale either in United States bonds, or if it was thought best, in the bonds of the town of Fayetteville and the county of Washington issued to secure the location of the university. Yet the day after the board had sent this bill to Mr. Clayton they again instructed the state treasurer to invest the proceeds of the land scrip sale as fast as they were received in government bonds. The two acts were not contradictory. If they in January had decided to invest the endowment in the bonds of Fayetteville and Washington County, if the legislature passed the bill, they could on short notice convert the government bonds into cash. About a month after the passage of this law the board decided that the bonds of Fayetteville and Washington County were good and safe securities in which to invest the endowment fund. A resolution was accordingly passed instructing the state treasurer to set apart these bonds ($130,000) then in his possession unsold as a part of the permanent endowment of the institution and to place subject to the order of the board for building purposes so much of the proceeds of the land scrip sales as would be taken up at $93^1/_8$ cents on the dollar. This transaction absorbed $121,333.33 of the $135,000 realized from the sale of the college land scrip and thus made that amount at once available for building purposes.

The transaction was wise financiering. The board could not have realized as much if they had thrown the bonds on the market, nor would they have received as good a rate of interest had they invested the endowment in United States bonds as they had originally planned. The transaction therefore made the endowment more productive and the building fund larger than could have been secured in any other way. Of the $135,000 received from land scrip the building site absorbed $11,000 and the bonds of Washington County and Fayetteville $121,333.33, leaving a balance of the land grant fund of $2,666.66, which apparently was applied on current expenses or on the building. The act of 1862 authorized the use of ten per cent. of the proceeds of

the sale of the college land scrip for the purchase of an experiment farm and a building site. This provision made $13,500 available for such a purpose. But the site cost the State only $11,000. It appears therefore that some $2,666.66, which legally belonged to the endowment, was applied on building or current expenses. Why the board, when they invested the land scrip money in the bonds of Washington County and Fayetteville, did not fix the price of the bonds at such a rate as to absorb all of the endowment fund left over after paying for the site, is not easy to explain. The only effect would have been to increase the building fund by $2,666.66.

However, the legal right of the board to invest the endowment funds in the bonds of Washington County and Fayetteville at a rate fixed at their discretion was raised. It was made the subject of special inquiry through a committee consisting of Judge Searle and Mr. Bishop. The specific question was this: "Can the board of trustees legally order the investment of the proceeds of the sale of the agricultural college land scrip in the Washington County and Fayetteville bonds, estimating in such investment the value of the bonds at any figure the board may think proper and best, even though the value fixed might be greater than what the bonds would bring if placed upon the market for sale?" The recent act of the general assembly which amended the organic act of the university authorized the investment of the endowment in Fayetteville and Washington County bonds "upon the best practicable terms." Did this language require the purchase of the bonds at their lowest market value? The committee decided in the negative. They reasoned that as both funds belonged to the university, one for building purposes and the other for productive endowment, there was no second party in interest, and that the board was at liberty to invest the proceeds of the college land scrip in the bonds at such rate as would best conserve the interest of both the endowment and the building fund. They reasoned that the interest of the university required the sale of the bonds, whose proceeds the law directed should be applied to buildings, at such a price as to yield the largest possible building fund, and that the proceeds of the land scrip, which the law set apart as permanent endowment, should be invested so as to yield the largest possible annual income. The board claimed that the conversion of one fund

into the other accomplished both purposes. If the Fayetteville and Washington County bonds had been thrown upon the market, they probably would have yielded much less than $93^1/_3$ cents on the dollar. On October 18, 1871, the board authorized the sale of $10,000 worth of the bonds at 75 cents. They were not sold at that price. In a letter to the commissioner of agriculture dated February 19, 1872, the secretary of the board in estimating the assets of the university placed the bonds of Washington County at 75 cents and those of Fayetteville at 85 cents on the dollar. Moreover if the land scrip money had been invested in United States bonds, the endowment of the university would not have yielded over half as much.

The University Before the Courts.

The university collected regularly without event the interest on these bonds amounting to $10,400 annually until their maturity in 1902, except in the collection of the interest for 1879 and 1880 there was some litigation. When the proposition to vote bonds was originally submitted to the people formidable opposition developed in the western section of Washington County, due to two or three causes. Among some it was felt that the benefits of the university in the main would accrue to Fayetteville. Others on general principles were opposed to bond issues. Still another source of opposition came from Cane Hill College, the friends of which felt that the location of the university in the county would injure said institution. That they were right in this view became more apparent as the university grew. The college became weaker and finally died. Opposition seems to have increased rather than diminished for the first few years after the location of the university. This feeling culminated in 1879 in the refusal of the county levying court composed of Judge Thomas Mullins and the justices of the peace to levy the tax to cover the interest on the bonds. The vote of the court, five for the tax and twenty against showed the proportions to which the opposition had grown. The levy should have been made for the period from January, 1879, to June 30, 1880. This lead to a mandamus suit brought by the university (State of Arkansas for the use of the Arkansas Industrial University vs. Thomas Mullins, et al.) to compel the levying court to impose the tax. The suit was brought at the

January, 1880, term of the circuit court before Judge James H. Berry, later governor and United States senator. The university was represented by J. M. Pittman and A. W. Wilson, while the people of Cane Hill and surrounding country engaged Sam W. Peel, later a member of Congress, to represent the levying court.

The brief of the defense and the testimony of witnesses in the case throw light not only upon the immediate question at issue, but also upon the course of study at the university. The defense pleaded that the organic act of 1871 authorizing the county to bid for the location and to issue bonds was in violation of section six of article ten of the constitution of 1868. This section provided that the credit of the State or counties should not be loaned without the consent of the people at the polls. The point was not well taken because the act did provide for the expression of the people's will. The brief further recites that the bonds issued by the county were illegal and void because at the election held on that issue only 400 votes were cast for the proposition and 320 against it, that 400 votes were not a majority of the qualified electors, but that there were at least 1,500 voters in the county. It further alleges that there were 3,000 males twenty-one years of age in the county, many of whom were disfranchised, and that if they had taken part in the election, two-thirds would have voted in the negative. The evidence on this point was weak. The defense further alleged that the university was being conducted almost solely as a literary institution, in which the classics, mathematics and the sciences were the chief elements in the course of study; that the land grant act of 1862, to which the institution owed its origin, emphasized agriculture and the mechanic arts as the chief subjects to be taught; that Arkansas by the acts of 1867, 1868 and 1871 solemnly pledged her honor to carry out in good faith the provisions of the grant; that the manner of conducting the institution was defeating the purpose for which the university was brought into existence and was therefore in violation of the acts of the general assembly of the State. As the funds were being misapplied the plaintiff insisted that there was no obligation on the county to pay the interest on the bonds.

The principal evidence introduced bore mainly on the last contention, namely, that the university, being run almost solely as a classical

institution, was in open violation of the laws of Congress and of the State. Members of the board of trustees and professors were called upon to testify. Their efforts to show how agriculture and mechanic arts were at least indirectly being taught are amusing. Professor Harvey was the star witness on behalf of the university. He insisted that chemistry, botany, and biology taught by him underlay agriculture. Professor Gates and other professors were also of the same opinion. Judge Gregg spoke modestly, but he understood that the subjects taught by Professor Harvey related to agriculture. He was also of opinion that the practical part of agriculture and mechanic arts amounted to but little and money should not be wasted upon them. Only the underlying principles should be given. However, he said that the university had raised some corn and rye and had a shop at which the tools of the farm could be repaired. Mr. Dinsmore was rather frank. He bluntly said that the State had not appropriated enough to develop agriculture and mechanic arts; besides there was no demand for them; the board had therefore used the limited means at their command in providing the courses for which there was a demand. Colonel Peel in commenting on the testimony said that the subjects taught at the university lay so deeply under agriculture and the mechanic arts that the relationship could not be discovered. The court granted the prayer of the university for a mandamus, and issued an order that the county levying court at its next regular term should levy the tax.

No further trouble was experienced until 1897. Washington County had provided a sinking fund to redeem the bonds at maturity and had invested it in state bonds. March 16, 1897, the general assembly authorized and directed the state treasurer to surrender the bonds of Washington County for the state bonds held by the county, the exchange to be made on the basis of the present worth of the respective bonds. He was furthermore required to cover into the treasury the state bonds received by him in exchange and to hold the same as a part of the university endowment fund. The state bonds held by the county bore six per cent. interest and with the accrued interest amounted to over $85,000. But of this amount the interest was nearly half, as the State had not paid the interest for many years. If the exchange was made, as the accrued interest

would not yield an income, it would in effect reduce the rate to almost three per cent and would therefore materially affect the income of the university. The board of trustees at their June meeting considered the question and passed a resolution authorizing Governor Jones to employ C. C. Hamby of Hope and J. B. McDonough of Fort Smith to represent the university in any litigation that might arise.

The attorneys took the position that inasmuch as the United States had made a donation to the university the United States had an interest in the institution and that an action would lie before the federal court. They accordingly brought suit (Arkansas Industrial University vs. Ransom Gulley, Treasurer) in the United States district court at Little Rock, asking that the injunction be granted against the state treasurer forbidding him to make the exchange of bonds in accordance with the provisions of the act. The suit was filed and a temporary injunction granted September 20, 1897, and on the 12th of the following April the restraining order was made permanent. The contention of the plaintiff was that the land grant act of 1862 provided that the State should invest the proceeds of the land scrip in securities bearing at least five per cent interest, that the State in its organic and preliminary acts had accepted this obligation and had solemnly pledged its faith to carry out the agreement, and that the proposed step would be in violation of this compact in that the interest on the state bonds to be received in exchange for the bonds of Washington County, while at a nominal rate of six per cent., would practically yield only about three per cent. The attorneys for the university moreover insisted that the payment of neither the interest nor the principal of the state bonds could be enforced, while in the case of the bonds of Washington County the university could secure an order of the court compelling the county authorities to levy a tax to cover bonds and interest.

Washington County was represented by R. J. Wilson of Fayetteville. He contended that the position of the plaintiff was not sound for the simple reason that the State could turn around and at once invest the accrued interest in other securities bearing five per cent or over. In this way the requirements of the land grant act would be met. Moreover he said that even if the average rate of interest should fall below five per cent, there would be no legal ground of

complaint, provided the state authorities invested the bonds in the best securities within the range of their opportunities. He called the attention of the court to the principle of law that where physical conditions made it impossible to comply fully with a rule of law, the nearest approach to compliance satisfied the requirements of equity and would stop all complaint. In this connection he quoted the decision of the court in the case of investing the endowment of Cornell University in the bonds of the city of Albany, the rate being less than five per cent. The court sustained the investment on the ground that safe securities yielding five per cent could not be secured. However, Judge Williams upheld the contention of the board of trustees and enjoined the state treasurer from carrying out the provisions of the act in question.

Fayetteville and Washington County Redeem Their Bonds.

In the organic act of 1871 it was stipulated that the town or county securing the location of the university should not be required to pay more than one year's interest on its bonds before the completion of the main building, and that in case more than one year's interest was collected, the State would refund said interest. As the building was not completed until 1875, the interest for 1873 and 1874 was erroneously collected. Accordingly the general assembly on December 14, 1875, directed the state treasurer to deliver to Washington County $16,000 in state bonds in lieu of that amount of interest wrongfully collected. The county was authorized to use the interest on these state bonds in settling its semi-annual interest due the university on its own bonds. The State did not refund the interest erroneously collected from Fayetteville for over a quarter of a century. The bonds of both the county and the town fell due January 1, 1902. In 1901 the general assembly passed acts making provision for final settlement. Washington County, it seems, had with a sinking fund bought state bonds, which, with the accrued interest, amounted to $88,500.

An act passed May 23, 1901, authorized the county on the first of the following January to deliver to the state treasurer said state bonds and sufficient money to cover the $100,000 county bonds held by the State. Whereupon it was made the duty of the state treasurer

to surrender the bonds of the county. Furthermore the state treasurer was directed to set aside $100,000 of 3 per cent funded state bonds of 1899 as a part of the permanent endowment of the university, the interest to be paid annually. The state debt board was also authorized, if it deemed it wise, to dispose of said bonds at not less than par and to invest the proceeds for the university in safe securities bearing a higher rate of interest. On the same day the legislature authorized the city of Fayetteville to pay on the first of the following January the accrued interest and to redeem as many of its bonds held by the State in trust for the university as the city was able. Moreover the act authorized Fayetteville to issue new five per cent bonds payable in five or twenty years in lieu of the bonds which said city was unable to pay. The act furthermore directed the state treasurer in settling with Fayetteville to surrender to the city $4,800 worth of her bonds to cover the interest erroneously collected in 1873 and 1874. The new five per cent bonds of Fayetteville and other safe securities to be purchased with the money received from the city, it was directed, should be set aside as a part of the permanent endowment of the university. Under the provisions of this act the city of Fayetteville in 1902 redeemed all but $9,000 of her bonds and in place of the old ones issued new five per cent bonds up to that amount. In 1907 the city took up these bonds.

Present Status of the Endowment.

The state bonds received from Washington County upon final settlement were set aside as a part of the permanent endowment; the cash received from Fayetteville and the county was invested in state bonds, raising the total investment in three per cent state bonds to $116,000, which is the amount now to the credit of this fund. Since Fayetteville redeemed the last of her bonds in 1907, the money has not been invested. So there is in cash to the credit of the endowment fund $9,193.75. This makes a total endowment of $125,193.75. There should be $130,000 besides the $2,666.67 of the land scrip sale which, as has been explained, was probably used for current expenses. The reason why the present endowment is short by almost five thousand dollars is that in 1902, when the State refunded to the city $4,800 of interest wrongfully collected in 1873 and 1874, she surrendered to

Fayetteville that amount of the city's bonds held to the credit of the endowment fund instead of paying in cash. The State therefore owes the endowment fund $6,472.92 and is to that extent violating the pledge made to the government in accepting the college land grant. With regard to the rate of interest the investment is realizing two per cent. less than the act of 1862 requires. If three per cent. is the best rate that can be had on long time safe securities, the State is not open to criticism at this point.

Comparative Statement.

The following tabular statement will afford an opportunity to compare the amounts of land received by several states under the act of 1862 and to what advantage each state sold its land or scrip.

State.	No. acres.	Amount realized per acre.	Total amount realized.
Arkansas	150,000	$ .90	$ 135,000.00
Delaware	90,000	.92	83,000.00
Maryland	210,000	.55	115,943.00
Alabama	240,000	1.06	253,500.00
Maine	210,000	.56	118,300.00
Illinois	450,000	1.00	450,000.00
Oregon	90,000	1.04	93,985.00
New Hampshire	150,000	.53	80,000.00
Rhode Island	120,000	.41	50,000.00
California	150,000	5.14	771,676.86
Missouri	330,000	.52	170,000.00
Indiana	390,000	.87	340,000.00
Wisconsin	240,000	1.51	363,738.88
West Virginia	150,000	.60	90,000.00
Massachusetts	390,000	.56	219,000.00
Ohio	630,000	.54	342 450.80
Nevada	90,000	1.05½	95,000.00
Vermont	150,000	.90	135,500.00
Pennsylvania	780,000	.52	406,000.00
Tennessee	300,000	1.34½	403,500.00
Nebraska	90,000	.44	39,504.52
Connecticut	180,000	.75	135,000.00
North Carolina	270,000	.46	125,000.00
South Carolina	180,000	1.07	191,800.00
Texas	180,000	1.16	209,000.00
Kansas	90,000	5.57	501,426.33

State.	No. acres.	Amount realized per acre.	Total amount realized.
Mississippi	207,920	$ .90	188,028.00
Florida	90,000	1.73	155,800.00
Georgia	270,000	.90	243,000.00
Iowa	240,000	2.70	649,396.16
Minnesota	120,000	4.39	526,837.96
New Jersey	210,000	.55	116,000.00
Virginia	300,000	.95	285,000.00
Colorado	90,000	Est. in part 1.25	112,500.00
Michigan	240,000	" 2.50	600,000.00
Kentucky	330,000	" .60	200,000.00
Louisiana	210,000	1.00	210,000.00
New York	989,920	6.73	6,661,473.88
	9,597,840	$1.65	$15,866,371.39

CHAPTER VII.

ADMINISTRATIONS OF PRESIDENTS GATES AND BISHOP.

The administration of each President Gates and President Bishop was short. As both were occupied with the foundation work of the organization and the beginning of the university they will be treated together. President Gates entered upon the discharge of the duties of his office December 13, 1871, and continued until December 20, 1873, when he gave place to President Bishop, who held the position until June, 1875. Again Professor Gates was advanced to the presidency and held the office until June, 1877.

Personnel.

In the organization of the university the selection of a faculty was among the many duties imposed upon the executive committee. The first faculty was indeed small, but the institution was also small. Only seven students matriculated the first day; and only ten in the normal department, none in the college and ninety-one in the preparatory department matriculated the first fraction of a year (January to July, 1872). The students matriculating the first day were A. W. Gregg, A. S. Gregg, Anna Putnam, C. R. Gilbreth, R. Putnam, W. G. Brooks and H. F. Buie. The corps of teachers for that year consisted of the following: N. P. Gates, acting president, principal of the normal department and acting professor of mental and moral philosophy, salary $2,440; C. H. Leverett, professor of ancient languages and literature, salary $2,000; Miss Mary R. Gorton, preceptress of mathematics and English literature in the normal department, salary $2,000; Miss L. J. Stanard, instructor in the model school, salary $1,500.

The committee wisely postponed the selection of a permanent president. Professor Gates, the acting president, was a Kentuckian by birth. He received his education in the common schools and in colleges in Kentucky, Missouri and Illinois. Educated for the ministry he took up teaching temporarily for financial reasons, became

absorbed in it, and continued an educator throughout life. After nine years in the public schools of Illinois, he in 1869 came South on account of failing health and accepted the superintendency of the city schools of Little Rock, which position he held when he was called to the presidency of the university. He was acting president until December, 1873, and from August, 1875, to July, 1877; he was principal of the normal department of the university from 1872 to 1875, and from 1877 to 1884. President Gates was the burden bearer in the early days of the university. He organized the school, did all the teaching for the first few weeks, assisted the executive committee in securing teachers, prepared courses of study, supervised the construction of temporary buildings, superintended the farm, and in the midst of it all did heavy class-room work. Even when General Bishop was president, many executive duties were still left to Professor Gates. He was also active in bringing the university to the attention of the public through the press and the platform.

Professor Leverett was born in Massachusetts, moved South and took a classical course at the University of South Carolina, graduating with the M. A. degree. He then taught school for a time in South Carolina. After the war he came west and accepted the principalship of an academy at Searcy, Arkansas. Later he was principal of Ozark Institute near Fayetteville. From this school he came to the university, probably the first teacher to join President Gates after the opening. Miss Mary Gorton was teaching in Cook County (Ill.) Normal when she was invited to the chair of English and mathematics in the normal department. For a time she taught all of the English and mathematics in the university. She was principal of the normal department the last year of her connection with the university. Other teachers were added from time to time as the means of the university permitted. During the scholastic year of 1872-73 Dr. Richard Thurston of Van Buren was engaged to deliver twelve lectures on theoretical and practical agriculture and horticulture; Captain Henry L. Burnell was instructor in military science and tactics; W. D. C. Boteführ became professor of music, and H. C. C. Boteführ, a member of the board, was made superintendent of the farm. An important acquisition was made to the faculty in October, 1873, when T. L. Thompson was elected professor of theoretical and applied chemistry.

He was a gifted young man, a B. S. graduate of Iowa State College of Agriculture. He took an active part in the work of the university for the short time he was here; he was secretary of the faculty much of the time and was also superintendent of the farm. He died of pneumonia February 3, 1875. The faculty in their minutes speak of him as one "upon whom Divinity had set the seal of superior manhood." For the remainder of the scholastic year advanced students were employed to teach in the preparatory department and Prof. Thompson's classes were divided among other members of the faculty. Gen. N. B. Pearce also made his first appearance in the faculty of 1873-74.

Lieutenant E. S. Curtis of the second artillery was detailed in 1873 to take the place of Mr. Burnell. He remained professor of military science and tactics until 1875 when a difference between him and the faculty over a question of jurisdiction and discipline led to his retirement. He seems to have been a competent officer. Two important acquisitions to the faculty were made by the executive committee in the selection of Professor O. C. Gray and Professor James Mitchell. Professor Gray was appointed to the chair of mathematics and civil engineering vice General Pearce. He was already a prominent educator in the State, having served as president of St. John's College at Little Rock from 1869 to 1874. He filled an important place in the faculty for many years. Professor Mitchell was also a man of ability. He was called to the chair of history and English literature, a position just created. Miss Gorton had hitherto taught English, and history had received no attention further than two very elementary courses in United States and general history, and a short course in the history of civilization. Professor Mitchell was called from Cane Hill College. He was a useful member of the faculty for the short time spent in the university. He resigned in November, 1876.

Professor Thompson was succeeded by F. L. Harvey of the Iowa State College of Agriculture. Both men were brought to Arkansas through the influence of President Welch of the College of Agriculture of Iowa who in 1873 declined the presidency of the University of Arkansas to which position he had been elected. Professor Harvey was a strong man and played a conspicuous part in the history of the

university for many years. A unique character was added to the faculty in March, 1876, in the person of K. Demmlar of Chicago. He was a German and was made professor of civil and mechanical engineering and German. He filled the chair from March, 1876, to June, 1877. Professor E. J. Borden filled the chair of mental and moral science in 1876-77. Professor O. F. Russell became principal of the preparatory department in 1876.

The Color Line Drawn.

In the first administration of President Gates the embarrassing question of admitting the negro to the university came up. It will be remembered that in the campaign in Washington County for the bond issue to secure the location, that question entered. Speakers championing the bond issue were called upon to say whether the negro would be admitted. January 17, 1872, at a meeting of the board held at Little Rock the following resolution was offered:

"*Resolved*, That when the exigencies of the case demand it, the executive committee of this board be and are hereby instructed to inform the president of the Arkansas Industrial University that white and colored students shall be admitted into the same classes by him." After free discussion the following substitute resolution was adopted:

"*Resolved*, That when this question shall arise, in the course of events pertaining to the regulation of the university, it shall be disposed of as the sound discretion of the executive committee may dictate."

In his commencement oration delivered in June, 1872, General Bishop, a member of the board, speaks felicitously of "the question of race and color" as being practically settled and grows eloquent about the university being a place where "all [are] privileged to attend, and with equal facilities to struggle after that preëminence which is the reward alone of industry and capacity." The subsequent action of the executive committee perhaps throws light upon General Bishop's utterance. In their report made to the board April 14, 1873, in speaking of the terms of admission they said, "Under the resolution by your board, passed in that behalf, we have thrown the institution open to all, without regard to race, sex or sect." This action, it seems, has

never been rescinded. Of course the establishment of the branch normal at Pine Bluff in 1875 in accordance with the act of 1873 removed the question from the domain of practical consideration. But if General Bishop meant that the two races were to be educated together in the university when he congratulated the institution on the practical solution of the race question, he counted without his host. He forgot that he was in the South, and that 1872 was only seven years removed from the Civil War. President Gates had the unpleasant duty of facing the question in its practical bearing. One negro had the temerity to apply for admission. According to the law he could not be excluded. President Gates did perhaps about as wise a thing as could have been done short of defying the board. He admitted the negro, but required him to stay during school hours in an outhouse nearby, and at noon and after school he himself heard the negro's recitations. The negro was not allowed to come about the building occupied by the white students.

Course of Study.

After laying down some general principles the executive committee left the details of the courses of study to be worked out by the faculty, promising that they would later submit to the board a more comprehensive and permanent scheme. Accordingly President Gates and his faculty announced in the first catalogue two courses, a "general course" of four years based on the completion of the grammar grade work today and probably designed for the B. A. degree, though not until five years after the opening was the degree mentioned, and "normal" courses of two and three years. The following year two other four-year courses were added, one in agriculture and another in engineering. For the agricultural course, which was largely scientific, there was no real demand. Most of the students took the classical or normal course, but few being interested in engineering. A commercial course appears after 1873 and thereafter until the close of President Gates' second administration. The course covered two years and required that the student devote about one-third of his time to bookkeeping and penmanship. Students completing the course to receive the degree of Bachelor of Commerce. It is a noteworthy

fact that this was the first degree mentioned as offered by the university, but it is not clear that any such degree was ever conferred.

For the year 1876-7 the course was lengthened to four years by additions in modern languages, science and philosophy. In another two years the entire course was quietly dropped. Its death seems to have been gradual, only eight students being catalogued for 1875-6 and none for 1876-7.

True to their word the executive committee took their work and promise seriously. April 18, 1873, they reported a permanent plan of organization of the university. They felt that as the land scrip had been issued and sold, the stage of uncertainty had passed and that the time was ripe for a far-reaching plan of operation. While they were conscious that the plan proposed might appear "too comprehensive and extended," they thought anything less, especially in respect to the industrial features, would fall short of the great objects contemplated by the college land grant act and the organic act of the State. They emphasized strongly the agricultural and industrial features of the institution. Commenting on this they said:

> These, doubtless, were the reasons that prompted Congress to lay the foundation of this new class of colleges and universities—new in their aims and results, new in their organization—institutions which should train men to the industrial pursuits and help them to turn a portion of the currents of educated life into the channels of productive industry. By them it was intended to link learning more closely with labor, and to bring the light of science more fully to the aid of the productive arts. Through them it was intended to give the pursuits of agriculture and the mechanic arts that honor and commanding position in the community to which they are justly entitled—the honor and position which should not be inferior in any enlightened community to those even of the so-called "learned professions."

The fact is the committee showed a clear grasp of the purposes of the land grant act; it is doubtful whether a clearer statement of the plans and purposes of the new institutions brought into existence by the land grant act can be found in contemporary writings than this report gives. The blame for the small number that took agriculture and engineering in the early days can not be placed at the door of the board nor of the faculty, for the legislation of both bodies favored industrial courses. It might be urged with some justice that for the first twenty years the board did not employ men scientifically

trained in agriculture, though with almost equal truth it might be said that but few, if any, such men existed in the United States. The schools had simply not trained a body of men for the agricultural colleges. The fact is there was no demand for the work, neither was there any adequate appreciation among the people of the State of the need of science as applied to either agriculture or industry, and no kind of artificial stimulants could overcome this lethargy. The university had to wait on the people, on the "moving of the waters."

After having stated forcibly the aims of the institution the committee made the following specific recommendations:

The university proper shall embrace four colleges, with thirteen subordinate schools as follows:

I. The college of agriculture, including
   First—The school of agriculture.
   Second—The school of horticulture.

II. The college of engineering, including
   First—the school of mechanical engineering.
   Second—The school of mining engineering.
   Third—The school of civil engineering.
   Fourth—The school of architecture.

III. The college of natural science, including
   First—The school of chemistry.
   Second—The school of natural history.

IV. The college of general science and literature, including
   First—The school of English and modern languages and literature.
   Second—The school of ancient languages and literature.
   Third—The school of mathematics.

In addition they said the college would include history, social science, military science, and a school of commence. The faculty was directed to work out the details as the progress of the university might require. Moreover the faculty was charged with the duty of prescribing the courses for the normal department. The committee also recommended the establishment of the following chairs in the university proper:

First—The chair of mental and moral philosophy.

Second—The chair of English languages and literature.

Third—The chair of ancient languages and literature.

Fourth—The chair of practical and theoretical agriculture.

Fifth—The chair of botany and horticulture.

Sixth—The chair of theoretical and applied chemistry.

Seventh—The chair of mechanical science, engineering and mining engineering.

Eighth—The chair of mathematics and civil engineering.

Ninth—The chair of military science.

Besides these they advised the establishment of six chairs in the normal department.

The plan was indeed an ambitious one. It could not then be realized nor has it been fully carried out up to the present. Though in general the plan marks the broad outlines along which the institution has been developing. It will be noted that in these matters the board and not the faculty took the lead. Judge Searle was chairman of the executive committee and may have written the report. The board and its committees deserve credit for both the intelligence that they brought to bear on the problems and the time that they devoted to the institution.

This utilitarian conception of education met with determined opposition. Almost all of the educators trained in the traditional college were either skeptical or opposed to the plan. As broad and liberal an educator as President Eliot of Harvard said in 1873 that the state might provide for universal elementary education on the basis of its being a cheap police system, but that no one should be taxed to send another man's son to high school or college. This opposition took form in an investigation into the administration of the land grant colleges by Congress in 1874. The house committee on education and labor was directed to conduct an investigation into the management of these institutions. The questions sent out were searching, calling for detailed information about the sale of the land scrip, the investment and administration of the endowment, the working of the schools, courses of study, and particularly the work done in agriculture and the industrial arts. The reports seem to have disarmed the opposition, for the fight soon ceased.

First Years of the University.

While the course of study was elementary and the material equipments were meager, they were no more so than the general educational, social and economic conditions of the State at the time were primitive. There were not many miles of railroad; no line penetrated the northwest section of Arkansas. The country was still new. Besides, it had not recovered from the Civil War. Daily mails reached comparatively few places. The public school system existed merely on paper; it had an officiary, the external machinery; but it had no vitality. It had no financial support. What state funds were available were in the form of depreciated scrip. Not only were the public schools in the germinal stage, but moreover the private schools were few and weak. Under these conditions a body of students prepared for college was out of the question. The college itself was compelled to take crude and unprepared students and fit them for college. Most of the matriculates knew something of the "common branches," a few even had the rudiments of Latin. Hence the major work of the first few years was preparatory and, judged by present college standards, the graduate of the early days could about enter the sophomore class of today. During the first fractional year there was no collegiate student and the time was occupied in reviewing preparatory subjects, or "licking the cubs into shape," as an alumnus has expressed it. So much was this general review needed that during this first year the whole body of students save the primary were often called together and put through general drills in arithmetic, elocution, grammar, geography and history. Out of these general meetings sprang the first literary society. Some of the most valuable services of President Gates consisted in brief morning talks to the untrained, but enthusiastic students on practical questions, such as manners, morals, and education. It was not until the second year that a freshman class was organized. The normal department was emphasized with a view to serving the imperative need of the State for better trained teachers. It was not until 1875 that the first normal class was graduated. It was a memorable event, not only because of its being the first graduation exercise, but because it was the first

university exercise to be held in the new University Hall. No degrees were conferred. In 1876 the first class of the classical course graduated.

In the matter of equipments for college work the university was no better off than in point of buildings. There were probably a dozen or more books as a nucleus of a library during the first fraction of a year. The next year other books and a few periodicals were added. Only small amounts for books could be allowed by the board. The fact is, the funds appropriated for the library have never been large. The class-room equipments the first year consisted mainly in blackboards and wall-maps. Not until Professor Thompson came in 1873 was there any apparatus for work in science. He secured enough funds for sufficient apparatus for a course in general chemistry. With the coming of Professor Harvey some physical apparatus was purchased. Prior to that the subject seems to have been taught without any laboratory. The two frame buildings previously mentioned erected in the autumn of 1871 and in the summer of 1872 together with an addition made in the vacation of 1873, housed the university until the main building was completed in 1875. The two frame buildings were two stories and were connected by a hallway roofed over and enclosed. They stood west of University Hall.

University Hall.

In this period the main university building was erected. Its construction was delayed by the failure of the government to issue the land scrip. However, this obstacle was overcome in 1872 and in August of that year the board authorized the sale of the scrip even before its delivery. The contract called for settlement in full for the scrip within twelve months. This fund was in part available April 14, 1873. when the board met and invested the land scrip endowment funds in the bonds of Fayetteville and Washington County and thus at once made available for building purposes $121,333^{1}/_{3}$, the cash price of said bonds. By this time the board was thoroughly convinced that the plans of the main building of the University of Illinois were superior to the plans of McKay & Helmle adopted the year before by the building committee. On being advised by Judge Searle and Mr. Bishop that the board was under no contractual obligations either

directly or by implication with McKay & Helmle for the erection of the building according to their plans, the board adopted the plans of the Illinois building. On July 4, 1873, the committee on buildings and grounds reported the several bids for the construction of the building according to the plans and specifications of the main hall of the University of Illinois. As the bid of Mayes & Oliver for $123,855 was the lowest, the contract was awarded to them, the building to be completed by September 1, 1875. John A. McKay, a bidder for the contract, was made supervising architect. At a later meeting Judge Lafayette Gregg and Stephen K. Stone, citizens of Fayetteville, were made advisory and consulting members of the building committee. Upon this local committee, though not members of the board, fell heavy duties of supervision. The main credit for the excellent workmanship and the high grade of materials for which the building is noted, is due to Judge Gregg, who with great care watched over the building while in process of construction. In 1874, after the contractors had begun the building, the old committee gave place to a new one, consisting of Lafayette Gregg, A. W. Dinsmore and M. F. Lake. This change of the board by Governor Baxter was the forerunner of the political revolution of that year, which turned the state government over to the Democrats. There was no change in the building plans except that the architect was summarily discharged for neglect of duty. The building was completed according to contract time and was accepted September 8, 1875. Alterations in the plans as the building progressed made it cost $135,246.88. Later as needs required the basement and third and fourth floors were completed and fitted up for use. The building for many years served all the needs of the university and is still the main hall for the arts departments.

Beneficiaries.

In 1874 the board changed the method of appointing beneficiaries. The old method was not bringing in students in sufficient numbers. For instance, in 1872-73, out of 230 students, only 67 were beneficiaries and the following year only 119 out of 321. The board accordingly divided the State into nine subdivisions and assigned a division to each member. Hereafter a beneficiary was to be appointed by the member of the board in charge of the district within which the

applicant lived. The trustee might delegate the power to the county superintendent. Each trustee was expected to be active in his efforts to fill the quota of beneficiaries to which the counties within his district were entitled. The plan does not appear to have improved matters, for in the year 1874-1875, out of a total enrollment of 344, there were only 155 beneficiaries. The non-beneficiaries were chiefly from Washington County. The railroads offered half fare to beneficiaries.

Finances.

The sources of income of the university during this period were state appropriations, the bonds of Fayetteville and Washington County, the endowment, and student fees. The endowment yielded $10,400 annually; the sale of the bonds largely paid for the building, while student fees and state appropriations were used to meet current expenses. The appropriations were as follows: In 1871, $50,000; in 1873, $30,000; in 1875, $6,389, besides $5,000 allowed to meet the expenses of the board of visitors created in that year. In 1872 the legislature appropriated $31,577.67, but only $10,000 of it was for maintenance. The rest was to cover an unpaid balance on the building and the expenses of the board of visitors. The appropriations by the State were paid in scrip and on some of this the board realized only 31 cents on the dollar. The financial administration was primitive. All accounts from the smallest to the largest had to be presented to the executive committee for approval. The records of the committee show that some accounts were allowed and ordered paid in currency, others in state scrip. It was important which form of payment was ordered. Salaries varied during this period. The president at first received $2,700, and professors about $2,000. The salary fixed for General Bishop when elected was $4,000. When the board was changed in 1874, his salary was reduced to $2,700, the principal of the normal department was allowed $2,100, while other full professors were paid $1,700.

In December, 1873, Senator Morrill introduced a bill providing for the further endowment of the land grant colleges. It proposed

to set apart the net proceeds of the sale of public lands as an education fund to be an endowment, the interest on which was to be divided into two equal parts, one to be divided among the states for the support of public schools, while the other half was to be applied to the support of the land grant colleges. The board of trustees of the university at once became interested and sent President Bishop to Washington to aid in securing the passage of the bill. On his way President Bishop attended a meeting of the National Agricultural Congress at Atlanta and secured the adoption of a resolution praying for the passage of the bill. He therefore proceeded to Washington and as chairman of the committee of the National Agricultural Congress to present the memorial, General Bishop laid the matter before Congress. He did what he could in its behalf. The bill failed of passage.

Government.

The purely internal concerns of the university for this period were controlled by the faculty. The president seemingly had no more authority than a professor. If he exercised any power, such as excusing a boy for an absence, his action to be legal had to be ratified by the faculty. The faculty elected janitors and student librarians and selected text books. The demerit system of administering punishment prevailed for most of this period. The faculty minutes are largely taken up with cases of discipline, hearing testimony and in fixing punishments. Absences had to be explained to the whole faculty and much time was occupied in determining how many demerits should be imposed. Some of the offences for which students were tried were absences, tardiness, insubordination, drinking, stealing apples, and lawlessness. Carrying concealed weapons was apparently common and was not a grave offense. Students seem to have had peculiar ideas as to the gravity of different offences. One student offered as an excuse for throwing rocks at Captain Lattimore's house that he was so drunk that he did not know what he was about; hence not responsible. Owing to his humiliation and previous good conduct the offence was condoned. A student in excusing himself for disobeying the order of the president did not know of a law

requiring obedience. One Mr. Quinn, in explaining tardiness, said that on his way to school he lost his dinner because it was not securely wrapped and had to return for another. The excuse was not considered valid, as he could have brought his dinner in a tin bucket. The faculty had much of the milk of human kindness. Frequently the records show that a suspended or expelled student was reinstated because he had confessed his sin and begged pardon. Sometimes people on the outside assisted the faculty in discipline. In 1874 a petition signed by 83 citizens of the town and county praying for the reinstatement of certain expelled students was filed. The request was granted.

It was also regarded quite an offence for young gentlemen and young ladies to associate together. Petitions for socials and for suspensions of the rules were usually refused. Young men of the literary societies were not permitted to accompany the young lady members home from their meetings on Friday night. Professor Gray thought it was the duty of the faculty to look after the social as well as the intellectual and moral habits of the students. At his suggestion the faculty instituted a monthly social to be held at the university. Some member of the faculty was to be present. No dancing was allowed. The faculty by resolution would at times pass students who had failed. In December, 1874, a rule was adopted not permitting a student to have more than four recitations a day. At the beginning of each term the faculty assigned to each member the subjects that he was to teach.

It will be noted that everything mentioned relates to the internal concerns of the school. The paramount authority was in the executive committee and they exercised it. The fact is the government of the institution except in matters of internal discipline was committee government; it was neither presidential nor faculty control. The executive committee met frequently, sometimes as often as two or three times a month. They passed upon all accounts, employed teachers and officers including president, fixed salaries, altered courses of study, and minutely supervised the affairs of the institution.

The university's growth in attendance for the period ending June, 1877, is shown by the tables below:

Number of College Students, Normals being counted Collegiate.

Year Ending in June	Males.	Females.	Total.	Preparatory Males and Females.	Total Enrollment.
1872	4	6	10	91	101
1873	19	12	31	199	230
1874	60	20	80	241	321
1875	87	50	137	198	335
1876	86	32	118	152	270
1877	90	25	115	172	287

Board Changes.

The year 1874 was a hot year in Arkansas politics. It witnessed the Brooks-Baxter struggle for the office of governor, the establishment of a new constitution, and a change of the state government from the Republicans, who had controlled it since 1868, to the Democrats. It was during the progress of this struggle that a party of Brooks' partisans seized and took to Little Rock the arms of the university. The board of trustees felt the shock, though there was no real change in the faculty or policy of the institution. Just after Baxter triumphed over Brooks, Judge Bennett, a member of the supreme bench and a member of the board of trustees, resigned. The general assembly May 30 passed an act vacating all trusteeships of the university, designated Dudley E. Jones, Lafayette Gregg, A. W. Dinsmore, J. M. Johnson, M. F. Lake, J. C. Wallar, Wood E. Thompson, the governor and the president of the university as the new board. The governor was made chairman. The act designated temporary officers pending a meeting of the board. It was made their duty to meet annually in June at Fayetteville. The old board was ordered to turn over to the state treasurer or to President Bishop all moneys, papers and property belonging to the university. The new board was conservative and took up the work where the old board had left off.

Search for a President.

The board had trouble in finding a president. Acting President Gates said that he preferred teaching to executive work, but agreed

to serve temporarily until the board could find a permanent president, after which he was to devote his entire time to the normal department. But it was not an easy matter to secure a man of scholarship and ability who was willing to come into the woods and take control of a mere hope. The search for a president continued from the organization of the university until General Hill accepted the office in 1877. The executive committee worked chiefly through General Bishop or President Gates. In December, 1871, they instructed him to correspond with universities and colleges at the north and east with a view to finding a suitable man and to lay the information gathered before the committee. This method of procedure failed of its purpose. On January 25, 1873, the board instructed General Bishop to visit the east with a view to finding a suitable person for the office. If he found the right man he was authorized to make a contract subject to the approval of the board. A maximum salary of $3,500 was fixed. Accordingly he visited Yale, Amherst Agricultural College, Cornell, Indiana and Illinois. He seems to have failed in his efforts. However, he opened up a correspondence in the spring of 1873 with A. S. Welch, president of the Iowa State College of Agriculture at Ames. Dr. Welch was invited to deliver the commencement address in June. He did so and he was formally tendered the presidency of the university at a salary of $4,000. This he took under advisement, finally decided to accept and tendered his resignation in Iowa. But the citizens of Ames entered such a protest that the board offered him such inducements that he felt constrained to reconsider and to decline the offer in Arkansas. This decision was communicated to the board November 14. Dr. Welch was a strong man and his coming would probably have meant much to the university. The executive committee upon receipt of Dr. Welch's communication elected General Bishop president to begin December 20, 1873. This action was later confirmed by the board.

In July of 1875 the executive committee tendered the presidency to General Joseph E. Johnston of Georgia. They felt embarrassed in offering such a distinguished gentleman only $3,000 and therefore in communicating with him through Governor Garland they asked the latter to explain the financial limitations of the committee and to impress upon him that a better salary would be provided when

the general assembly made another appropriation. The following month they were advised of General Johnston's declination of the offer. Whereupon they again tendered the acting presidency to Professor Gates, who accepted and filled the office during the next two years. It seems, however, that the work did not suit him and he requested to be relieved more than once. Accordingly in December of the following year the executive committee requested President Gates to enter into correspondence with institutions of learning with a view to finding a suitable person for the position. It appears that there was some objection to Professor Gates, for the faculty took up his cause and on March 1, 1877, sent a communication to the executive committee, expressing regrets that President Gates was resigning. They said two things were urged against him—management of the university and his politics. As for the first they insisted that the discipline, morals and standard of the institution had been raised under him and that in discipline he was always just and impartial and that he uniformly had the support of the faculty. With respect to the matter of politics they saw no relation between the politics of a man and his qualifications for an educational position. Besides, he had not injected his politics into university affairs. This is probably a fair statement of the case. In the spring of 1877 the executive committee corresponded with General D. H. Hill of Charlotte, North Carolina, and General A. P. Stuart of Oxford, Mississippi. When the board met in June, General Hill was elected at a salary of $3,000. Governor Miller was directed to communicate the action of the board to General Hill, to state their legal incapacity to guarantee a salary for a term of years and to assure him that the permanency of the endowment rendered such action unnecessary.

CHAPTER VIII.

ADMINISTRATION OF GENERAL HILL.

Personnel.

General D. H. Hill was born in York District, South Carolina, July 12, 1821. He entered West Point in 1838 with a class whose roll was adorned by the names of Generals Longstreet, Stuart, Van Dorn, Rosecrans, Reynolds and Pope. After the Mexican war Major Hill resigned his position in the army and accepted the professorship of mathematics in Washington College, Lexington, Virginia, which position he filled for six years when he accepted the same place in Davidson College. In 1859 he became commandant of the Military Institute at Charlotte. His military record in the Confederate army is a matter of common fame. General Hill's service in connection with the University of Arkansas (1877-1884) is given in this chapter.

Among the teachers taken over to the new administration from that of President Gates were Professors Gates, Leverett, Gray, Harvey and Miss Harris, all of whom remained in the faculty throughout his administration. Miss Harris had been added as a tutor in the preceding year and was now advanced to an adjunct professorship of English literature and history. This position she held until 1880 when she was raised to the rank of professor of English and history. She graduated from the university in the first class, that of 1876. During most of her official connection with the university she was secretary of the faculty. Professor O. F. Russell came in with General Hill and for three years was principal of the preparatory department. He was compelled to resign in December, 1880, on account of ill health. James Beale Gordon was a graduate of the University of Virginia. He was appointed adjunct professor of civil engineering and mathematics, vice Professor Demmler. He held the position until June, 1880, when he was made professor of applied mathematics and engineering. He died in September of that year. He was a man of promise. Professor H. E. Edmeiston, an alumnus of the University of Virginia, was appointed in 1879 first assistant in the preparatory

department, which position he held until October, 1880, when at the request of the faculty the executive committee appointed him professor of modern languages. He held this chair until 1885, when he was swept away by the revolution of that year. Professor George W. Droke was appointed in 1880 to a place in the preparatory department. The following June he was elected first assistant in that department, which position he continued to hold until 1885, when he, like the rest of the faculty, was retired in keeping with the board's construction of the act of the general assembly of that year. He is an A. B. and A. M. graduate of the university and for many years he has held the chair of mathematics in his alma mater. Rev. H. M. Welch was selected in 1880 principal of the preparatory department vice Professor Russell resigned. He held the position until 1885. Professor A. V. Lane filled the chair of applied mathematics and engineering 1882-84. In 1879 C. P. Conrad of the University of Virginia was elected adjunct professor of science. In 1881 the work in science was divided, Professor Conrad took chemistry and physics and Professor Harvey biology and geology. Professor Conrad was a man of strong individuality, and for six years he played a conspicuous part in the history of the university.

Growth of Departments.

The administration of General Hill began under difficulties. The university was not known nor appreciated in the State. Besides, the general assembly of 1877 allowed the institution a mere fraction of the appropriation requested. As he entered upon his duties therefore the board was under the necessity of retrenching in expenditures. Accordingly, when they met in June they vacated all positions in the university and appointed a committee to prepare a plan reorganizing the faculty, consolidating where possible, and reducing expenses. The report of the committee advised the following professorships: mental and moral science with political economy and civil polity; mathematics and civil engineering; natural science and chemistry; ancient and modern languages with English literature and history; principal of the normal department; music. The first chair was assigned to the president, Professor Leverett and Miss Harris

were made responsible for all of the languages, Professor Harvey was thought competent to teach all of the sciences, while mathematics and engineering were given over to Professors Gray and Gordon.

Notwithstanding many difficulties, the administration made progress. General Hill's strong personality, aided by his military fame, soon gave him a strong hold on the State. There was an appreciable growth in the appropriations. The total amount allowed the university in 1879 was $24,000, in 1881 $19,246.81, and in 1883 $29,716.48. An act of 1883 required that thereafter all appropriations for the university must be itemized. General Hill was therefore able to equip the departments better. In this work he was ably seconded by Professors Harvey and Conrad. The executive committee of the board in 1877 had pointed with pride to the scientific work of the classes of Professors Harvey and Demmler. In his report of that year Professor Harvey urged the importance of increasing the equipments in physics, chemistry, botany, mineralogy and zoölogy. He asked for an appropriation for the purpose of securing and preserving a collection of the plants and animals of the State. He also advised the establishment of a system of meteorological observations. He was zealous in the work of collecting specimens, using students as well as traveling in person over the State. From time to time the board appropriated for the laboratories and the library. The small sums allowed seem to have been wisely expended. The botanical and mineralogical collections of Professor Harvey were especially good; the work was systematically done, and the specimens remain a part of the permanent equipments of the university.

The library grew slowly. After 1877 it was opened at regular hours in the day. Student librarians were used, though even they had to be dispensed with for lack of funds in 1877. Soon they were restored, and under the supervision of Professor Conrad they looked after the library. In 1879 the librarian reports 739 volumes, while five years later there were 2,120. At first students could consult books in the library only; later they were allowed to take them out on the written order of the teacher. In 1879 the legislature appropriated $1,000 for the library.

The University and the State.

The relation of the university to the State during General Hill's administration, while not what it should be, improved somewhat. The executive committee of the board in 1877 complained of the lack of a proper understanding of the character and magnitude of the university by the people of the State. This, they thought, was in part due to prejudice engendered by disgraced students and disappointed aspirants for positions. The committee therefore advised that the board put an agent in the field to advertise the university and to solicit endowment, books and geological and botanical specimens. The suggestion was not adopted. The board of visitors in 1877 advised a closer connection between the university and the schools, saying that a certificate should pass a student from the high school into college classes. The committee moreover thought that competitive examinations should be held in the various schools, and rewards offered for the best prepared students. Probably growing out of this suggestion, the board the following year provided that honorary scholarships should be given to all students passing the entrance examinations to the freshman class. The state teachers' association in 1879 passed a resolution asking for a closer relationship between the university and the public schools. With this in view it advised an examination board consisting of two members of the faculty and two to be named by the superintendent of public instruction whose duty it should be to conduct entrance examinations in different parts of the State. It was hoped that this would bring the schools into closer touch with the university. While the faculty endorsed the plan, the board felt that the time for such a movement was not ripe.

Degrees and Standards.

General Hill's administration is also marked by some changes in the courses of study. Greek was required for the B. A. degree, beginning with the sub-freshman class of 1878. This rule was changed in 1883 and the Greek became optional. The board in 1877 directed that all beneficiaries be required to take a course in agriculture and mechanics. In 1878-79 it was arranged for the normal graduates to receive the B. L. degree. This did not last long. The

following year it was taken from the normals and bestowed upon the graduates of the modern language course. In 1879 the B. S. course was outlined, which substituted French and German for Latin and Greek in entrance requirements, and the sciences for the ancient classics in the college department. In June, 1880, upon the recommendation of the faculty a number of changes were made in the course of study and new courses introduced. The following courses were announced: the classical, Latin letters, modern languages, English letters, normal, scientific, agricultural, civil engineering, and mining engineering. Corresponding to these courses were the following degrees: B. A., B. Lat. Let., B. L., B. Eng. Let., B. S., B. S. A., C. E., M. E. The president, in transmitting the recommendations of the faculty, said that women usually had no wish to take "mathematical and scientific studies of a high grade," or "to devote their time to the more abstruse and difficult branches of study." Some of the courses were therefore provided for the benefit of those not caring to take the classical, scientific, or engineering courses.

In fact, trouble arose over the movement to raise the standard of scholarship in the university. In 1881 the students petitioned the board to remove Professor Conrad, partly because his requirements were so high that they had but little time for other subjects. The alumni association, fearing the effect of such a movement, came forward with a counter resolution endorsing the efforts of the faculty to maintain standards. This, however, did not settle the question, for in June of the following year the board of visitors investigated the complaints and among other things said in their report: "We find that the high standard set up by Professor Conrad has greatly diminished the present graduating class, and has driven off numbers from the junior class, for the last two years until there only remains three to constitute the next senior class." The trustees in turn investigated the subject and reported the same findings. They called upon him to cease lecture methods and to reduce the amount of work required of his students. This he seems to have done, as no further complaint on that subject appears. In 1882 the board, upon the recommendation of President Hill, graduated two young men who had failed, but at the same time passed a resolution declaring that

thereafter a student failing to secure the recommendation of all professors instructing him should be given a certificate only. The board further directed that the president be regarded as the head of the B. A. department and that the professors in faculty meeting distribute the other departments among themselves, the major work of a professor determining the department to be assigned to him. It was moreover provided that upon the recommendation of five professors with whom a student had had work, he should receive the degree of Bachelor of Philosophy.

The normal department during this period received some aid from the Peabody fund. In 1878 the board rescinded the rule requiring normal students to take the pledge to teach two years. However, the department gradually lost its original importance. When General Hill entered upon his duties the university had been without a military officer detailed by the general government since the retirement of Lieutenant Curtis in 1876. From 1876 to 1878 the board, through Governors Garland and Miller, tried to secure a detail. Governor Miller in June, 1878, reported that the war department refused to detail a man because no officer could be spared from the service. In 1878 the war department directed the return of the ordnance in default of the university having a United States officer in charge of the military department. Protests of university authorities secured a stay in the execution of the order. The board and the president made repeated efforts to secure a detail, but without avail. Col. O. C. Gray, professor of mathematics, acted as commandant of cadets throughout most of the administration.

Up until 1878 all students who were neither beneficiaries nor normals were required to pay tuition. In 1878 the faculty called the board's attention to the fact that students were leaving and going to other univeristies on account of tuition. Accordingly the board made the entire collegiate department free. At the same time they increased the possible beneficiaries from 237 to 350, the number of normal appointments remaining 237. In 1881 the trustees authorized the faculty to appoint sixty indigent beneficiaries, and in 1882 increased the possible beneficiaries to 600 and the normals to 400.

The county judge made the appointments. The professors were required by the board to teach six hours a day. In 1878 the faculty changed the length of recitation periods from one hour to forty-five minutes. This regulation continued for several years. The preparatory department was moved in 1877 from the old frame building to University Hall. In June, 1884, the first official reference is made to football. The students petitioned the board of trustees to set apart two and a half acres as grounds for baseball and football and to appropriate for its improvement. The board instructed the regent to set apart the grounds desired, but to expend no money on its improvement.

University Sunday School.

The early official acts of General Hill were characteristic. The first was a motion in the executive committee of the board to purchase song books for the use of students at chapel. Another was to open faculty meetings with prayer. He was a devout Christian, and his administration was characterized with the Christian spirit. Two chapel exercises were conducted daily, one in the morning and one at the close of the last recitation period. General Hill conducted a Sunday school at the chapel each Sunday afternoon for several years. Attendance was made obligatory by action of the board upon all students not having conscientious scruples. The whole school was taught by the president. It was kept up until 1883, when at his suggestion it was discontinued and a roll call substituted, though the latter was not a success. In his last report President Hill said that the university in 1883-84 had missed the conservative influence of the Sunday school, that it had been one of the most potent forces in preserving order and in maintaining discipline. "But," said he, "as the church was more opposed to the Sunday school than even the heathen and infidels, I recommended last June that it should be abolished." In the spring of 1881 the faculty gave permission for the organization of a Young Men's Christian Association, and a room was assigned it. In 1880, upon the approval of the faculty, an anti-copying society was organized among the students. It was a secret organization, its members being known only to each other and to

the faculty. Offences against honesty were to be reported to the faculty for trial and punishment. It does not seem to have had much vitality. It soon disappeared. Literary societies were encouraged. The faculty in 1880 required all students to join a literary society. The time of meeting was Friday afternoon for a few years. In 1883 the board fixed Saturday afternoon for their meetings. Separate societies were organized for preparatory and collegiate students. In 1878 the board directed that the old college building be repaired and fitted for a boarding house, to be called steward's hall. It accommodated about thirty-eight students. The board or the president selected a steward and fixed the price at which he could charge students for board. This varied from $5.50 to $7.00 per month. The purpose was to keep the cost of living low, especially for the benefit of the poor.

Local Influence.

Local influences threatened the welfare of the university in the early eighties. Of the eight members of the board in 1880 five lived at Fayetteville or in its neighborhood. The executive committee, which employed teachers and had general charge of the institution, was made up entirely of local men, unless the president of the university is an exception. About half of the teaching force was drawn from Fayetteville. The board of visitors called attention to this evil in their report in June, 1880. They discovered a lack of harmony in the trustees and protested against the selection of more than one local trustee. They added, "Local boards are subject to local influences, and will not grapple with local difficulties so fully as those living remote from the university." The question assumed an acute form in the autumn of 1880, when the executive committee used a local man instead of a strong applicant from the University of Virginia to fill the principalship of the preparatory department made vacant by the resignation of Professor Russell. This action called forth a protest signed by Governor Miller, Grandison D. Royston, W. E. Thompson and A. W. Dinsmore, four members of the board. Mr. Dinsmore of Bentonville, though a local man and a member of the executive committee, signed the protest. It was further endorsed by the faculty. The protest noted a cry for a

recognition of "home talent" in the appointment of teachers, a demand by churches for special consideration, and the growth of a tendency in the executive committee to allow local influences to control official action, especially in the selection of teachers. It pointed out that the university existed for the benefit of the entire State, that such a policy would lower standards and would strengthen the prejudice already existing over the State that the university was a local institution administered in the interest of Fayetteville, a condition making it almost impossible to secure appropriations for its support. They were therefore of the opinion that the committee and the board should divorce the university absolutely from local influences and administer it as a great public trust.

Governor Miller, in his message to the general assembly in 1881, advised a complete reorganization of the board so as to free the university from the control of local influences. But it was not until March 7, 1883, that the legislature acted upon the suggestion. It then reorganized the board by providing that it should consist of the governor, the superintendent of public instruction, the president of the university, and six others to be appointed by the governor subject to the confirmation of the senate, one from each congressional district and one from Washington County. The governor was authorized to appoint the new board at once and it was to enter upon the discharge of its duties in June. Under this act the following board was appointed: Joseph W. Martin, Little Rock; J. T. Bearden, Camden; J. P. Eagle, Lonoke; Chas. Coffin, Walnut Ridge; George J. Crump, Harrison; Thomas M. Gunter, Fayetteville.

Government.

In the government of the university General Hill was a dominating figure. He was a masterful man, strong and positive in his convictions, and uncompromising where principles were involved. In administering discipline he knew no man in the flesh. To him the son of the governor was no more than that of the humblest citizen. For instance, the third Monday after the opening of the university in 1877, he called the faculty together, expelled several boys for drunkenness and announced it at chapel the same morning. One or two of the boys belonged to prominent families in the State, special efforts were

made to induce the faculty to rescind the action. The governor's influence was invoked and a suit to compel restoration was instituted against the faculty, but without avail. An ex-member of the supreme court and of the board of trustees had the same experience in the case of the expulsion of his son. The old system of the executive committee interfering in the internal government of the university soon ceased after General Hill assumed control. In his report to the board in 1879 he said that the internal affairs of the institution should be left to the faculty. At the same time he supported his recommendation by placing before the board for their enlightenment letters on the subject from the leading college and university presidents in the country. The trustees were convinced, and at a later meeting authorized the faculty to control "in all matters educational and disciplinary, without interference from any other source." The reports of President Hill to the board were always strong. They were filled with the results of his comparative studies of higher institutions of learning. He kept himself and the board informed respecting the organization and operation of the leading colleges and universities of the country.

The demerit system, which had been introduced under President Bishop but was later discarded by President Gates, was revived by General Hill. That and the monitorial system were used throughout his administration. The scale of demerits occupies two typewritten pages in the faculty minutes; besides, additions were made from time to time as offences not hitherto thought of occurred. President Hill himself thought the system an excellent one for college discipline. Students were not permitted to attend the theater except on Friday and Saturday nights between terms. The faculty kept in close touch with the students. At faculty meeting each week the roll of students was called and delinquents noted, or professors reported the delinquents in their classes. The president followed this up by interviewing such students, and if necessary reported them to their parents or guardians. If efforts at reform proved futile the student was invited to withdraw. It seems that faculty meetings at times became tiresome, for we find the professors themselves passing

rules limiting the meetings to one hour and restricting debate by not permitting a professor to speak more than twice on the same subject. At times the faculty appear to have had generous impulses, for on one occasion, when a few seniors failed to pass the examinations, while refusing them the B. A. degree, they created a special committee to examine them "and determine whether there be any degree to which they are entitled." After due deliberation it was decided to confer the B. L. degree upon them. Drilling the senior class preparatory for commencement was an important business. Some professor was assigned to this task early in the year. In January, 1882, the university suffered from a small-pox scare which caused about one hundred students to leave.

Attendance.

During part of this period the university grew in numbers. General Hill's standard of judging an institution was not numbers; on the contrary, he repeatedly emphasized the contrary. For instance, in his report of 1880 he said that the true standard of measurement was "the high character of its faculty, their teaching ability and their disciplinary power." Another element was the students, their habits of study, sense of honor and character. Yet he took some pride in showing the growth in attendance during the first three years of his service. The record for his administration is:

	1877-78	1878-79	1879-80	1880-81	1882-83	1883-84
College students	96	148	150	120	77	83
Preparatory students	160	232	300	306	298	240
Others	0	40	0	15	0	40
Total	256	420	450	426	372	363

The attendance in 1881-82 was 363. The board of trustees said then that the falling off was due to three causes—drought, small-pox and the elevation of the standard of the institution. In his report in June, 1883, President Hill pointed out that notwithstanding the reduced enrollment the University of Arkansas ranked high in point

of attendance. In support of this he submitted statistics, some of which are here given.

University of Arkansas	372	students
" " Missouri	512	"
Cornell	384	"
University of Mississippi	259	"
" " Nebraska	284	"
" " Minnesota	253	"
" " Tennessee	225	"
" " Michigan	216	"
" " North Carolina	199	"
" " Texas	127	"
Washington and Lee	132	"

The enrollment of 450 in 1879-80 was the high-water mark of his administration. This, he said, was for that year fourth in point of attendance among higher institutions of learning in the United States. Even in June, 1884, he was able to say that the attendance at the university was third among the universities of the South, Vanderbilt and the University of Missouri alone having larger numbers.

It should be said in passing that during this period the third and fourth stories of University Hall were completed and occupied, that the old college building was fitted up as a boarding house, and that the teaching force was increased from ten to sixteen.

Administration Under Fire.

The falling off in attendance during the last three years of his administration was keenly felt by General Hill. He attributed it primarily to the introduction into the university of two principles from the University of Virginia, namely: (1) high standard of scholarship required for graduation and (2) indifference on the part of the faculty as to the moral character and conduct of students outside of the class room. The University of Virginia did have able representatives in the faculty and in the breach this influence was thrown against the president. General Hill was not opposed to high standards, but insisted on a gradual, not a sudden, raising of standards. Internal dissensions within the faculty were doubtless a contributing cause of the decrease in numbers. Knowledge of the strife among the teachers reached the students and the public and greatly damaged

the reputation of the university. Charges and counter-charges were industriously spread from mouth to mouth by busy partisans until they reached the public through the press. It did not take long for complaints to become general and for the public to come to the conclusion that there was something radically wrong with the university. All manner of changes were made, and by July, 1883, the newspapers were freely discussing the university situation. It was said that the university was a rich man's college, that the classical courses dominated everything, that the original purpose of the land grant act, an agricultural and mechanical institution, was lost sight of, that the government was a military despotism. The reorganization of the board of trustees by the legislature in 1883 in part grew out of this feeling of dissatisfaction. The demerit and monitorial systems came in for a large share in the criticisms. It was said that students were demerited and sent home for trivial offences, that the system of monitors was a form of espionage, that sufficient liberty was not granted students, that the president was making the institution sectarian through the Sunday school, and that the university was in a decadent condition. The fight on the Sunday school led to its abandonment in 1883. Over against these criticisms were emphatic denials of their validity. No one was more positive regarding the wisdom of the demerit and the monitorial systems than was the president himself. He urged that the demerit system was just and democratic, that instead of the monitorial system being a form of espionage, it was a system of self-government and that both were in use in the best governed institutions of the country. Doubtless all of these causes contributed to the falling off in attendance.

The Great Breach.

The first three years of General Hill's administration were peaceful as well as successful; the last three years were stormy. Differences in the faculty began to develop as early as 1881; they continued to grow, and by 1883 they had developed into a great breach. On one side was President Hill with his friends; on the other side was a group of teachers with Professor Conrad as their leader. Both men were positive characters. Neither was disposed to yield. At first Professor Conrad led the movement for a high standard of scholarship

and was so exacting as to bring down on himself the wrath of the students. The petition for his removal in 1881 brought President Hill to his rescue, though he did not approve the professor's high standards. The following year, however, the visitors and the trustees complained loudly of his heavy demands on the students' time and the board called upon him to lower his standards. While he changed his attitude in the matter of standards, he seems to have developed an animus against the president and some thought sought to displace him. Whatever the cause he led the fight on General Hill within the university and soon developed a strong following. The new board in June, 1883, was expected to do something to heal the breach. However, the waters were disturbed at this meeting when Professor Conrad sent a communication, meritorious in itself, direct to the board instead of through the hands of the president, as the regulations required. The trustees probably thought that they had permanently healed the breach when they passed a resolution strongly endorsing President Hill as a man preëminently qualified for the position which he held, complimenting the faculty for their distinguished services in "art, literature and science," and urging "a harmonious and conscientious coöperation" in the government of the university. The members of the faculty were warned that "any wilful and persistent deviation from this course" would receive the disapproval and condemnation of the board.

If the board thought this would calm the disturbed waters, a later storm rudely undeceived them. Before the year was half gone it was apparent that in his own faculty General Hill was in the minority, and that Professor Conrad had a controlling influence. This was shown in the famous trial for "drunkenness, riot, and assault" on J. L. Taff. It seems that on the night of January 11, 1884, there was a disturbance in the University Hall, in which four seniors and one junior participated. They were charged with drunkenness and assault on J. L. Taff, a senior. The trouble probably arose out of the growing dissatisfaction with the monitorial system. It was attacked from without and within as an antiquated system. When it became unpopular, many students when on duty as monitors would not report delinquencies that came under their observations, and the student who was faithful to duty incurred the displeasure of the students. Mr. Taff was one of this class. Whether the attack on Taff was an

"assault" as charged, or was "simple teasing," as the faculty defined it, is not clear, because the evidence taken has disappeared. In any case the president and the majority of the faculty were hopelessly divided. The president insisted that the accused were guilty and should be summarily punished; the majority of the faculty did not consider the case serious. The trial lasted for several weeks, and in one form or another the case was before the faculty until June. The young men were demerited for ill treatment of Taff and for being out of their rooms. The faculty meetings were spicy. Charges and countercharges were indulged in freely. The president charged that certain members of the faculty became the attorneys of the accused, that they browbeat prosecuting witnesses, and that they espoused the cause of lawlessness in the university. The faculty entered a denial of the charge. The case was aggravated by petty annoyances and persecutions to which Mr. Taff was subjected for the remainder of the year. The matter was officially brought before the board in June by the president and by an appeal of Mr. Taff. The latter charged individual members of the faculty with open partisanship in the trial. The board, however, dismissed the case as not warranting their interference. President Hill's annual report to the board discussed the whole university situation and declared that the falling off in attendance and the internal troubles had their origin in two principles imported from the University of Virginia, namely, (1) an exceedingly high standard of scholarship required for graduation and (2) a total indifference on the part of the professors as to the conduct of students outside of the class room. While the first cause had been removed, the results would remain for years. The second principle he held responsible for the spirit of lawlessness that had pervaded the students for the past six months. He also insisted that individual members of the faculty were in part responsible for this condition. While General Hill may have lacked tact and flexibility of character, and while he may have shown some of the weaknesses incident to old age and ill-health, on the other hand the least that can be said is that some members of the faculty were insubordinate, disloyal and lacking in respect due the age and illustrious character of the president.

Retirement of General Hill.

General Hill had sought to be relieved of the duties of the presidency for two years. Before the meeting of the board in June, 1882, he had made known his purpose to resign. Two years before he had had an attack of pneumonia in Little Rock and since that time his health had been poor. Besides, he was getting old, and the loss of a daughter a few months prior to his resignation had been a severe blow to both himself and his wife. But the people were not willing that he should retire. The press, the supreme court, the Arkansas delegation in Congress, the governor and the trustees and the board of visitors all joined in an appeal that he remain. He finally yielded to the call. However, he never again gained complete mastery of the situation. He could not bring to the problems before the university the strength of former years. He was right in resigning; he ought to have been allowed to retire in 1882. He would have been saved the humiliating experiences of 1884. February 8, 1884, he sent to the executive committee his resignation "on account of ill-health and other causes." He preferred to be relieved at once. After getting his consent to serve until June, the committee on March the 12th accepted his resignation. Both the committee and the board spread on their minutes resolutions bearing testimony to his great character and splendid public services. This closed a great administration. It was made so by its truly great head. While the unfortunate troubles of the last two years marred its brilliancy, yet above the passions engendered by the factional strifes stand the great intellect and character of Hill. He left his impress upon the students and the State as but few men have ever done.

Hill Hall.

CHAPTER IX.

ADMINISTRATION OF COLONEL EDGAR.

When in January, 1884, the executive committee accepted the resignation of General Hill, they announced the vacancy and solicited applications. At their meeting in June following, the board selected Colonel George M. Edgar, LL. D., of Kentucky, to fill the vacant post. President Edgar was a Virginian by birth and had received his education in the Virginia Military Institute and in the University of Virginia. He had served as professor and president in a number of colleges in Florida, Virginia, North Carolina, Mississippi and Kentucky. Moreover, he had won distinction in the Civil War.

The New Code.

The new president was confronted with difficult problems. He inherited from his predecessor a family quarrel. The board retained the faculty of General Hill, the bitter controversy in which had divided the students, the local community and to an extent the State. The newspapers continued to discuss the "university situation." Moreover an agrarian movement developed which made demands upon the university. To have guided this movement or to have satisfied its demands would have taxed the resources of a stronger man. To add to his troubles the general assembly continued to regard the university as a small enterprise and unworthy of liberal support. Before the board adjourned Colonel Edgar came on and met with them. They took steps to strengthen the hands of the president. Hitherto in official documents the head of the institution frequently had been styled "president of the faculty," probably copying after the University of Virginia, where the faculty merely had a chairman. The board pledged the new president to support him against attacks from within or without, and to remove any officer who might prove incompetent or insubordinate. Moreover they made the president, assisted by the commandant, responsible for the efficiency of the military organization and for the good order in the buildings and on the

grounds. He was made chief military authority in the university, and the commandant was directed to enforce the general rules of the institution and the orders of the president.

Colonel Edgar also secured an order from the board directing the framing of a code of regulations more accurately defining the duties of the president, professors and students. This code was framed by the faculty in the autumn and later adopted by the executive committee and the board. It is a voluminous document, and if detailed rules could solve the problems before the university, a brighter day was ahead. The sexes were segregated as far as possible and no communication between them was permitted. All students were required to sit in study halls. Classes at given signals marched by sexes to and from recitation rooms. Daily drills of thirty minutes were substituted for hour drills two days in the week. The demerit system in a modified form was retained. Professors were required to report daily to the commandant all delinquencies coming under their observations. Each instructor was required to make out a minute weekly report to the president, giving the ground covered and the progress made by each class and by each pupil. Examinations were placed under stricter rules; at least three officers were required to be in attendance at each examination. The president showed zeal in visiting and inspecting class work and in his efforts to supervise all departments. There was probably too much supervision. However, the president in his annual report in 1886 was quite well pleased with the rules, saying that while they provoked criticism at first, their wisdom had been demonstrated.

Old Faculty Overthrown.

At the request of the board President Edgar spent part of the summer of 1884 in addressing the people in different parts of the State. The work of the faculty the first year was more satisfactory than the year before. Moreover, there were no open ruptures nor serious disturbances among the students. However, the new administration did not have the confidence and the hearty coöperation of all of the subordinates. In the fall and winter public criticisms of the new règime appeared in the press. The new regulations received merely half-hearted conformance at the hands of some of

the professors and were obnoxious to many of the students. But the president did not file complaint. The storm came from without. The friends of General Hill throughout the State felt that he had been wronged by certain members of his faculty, that they were in part responsible for his resignation, and that they instead of the president should have gone in 1884. In this they were probably encouraged by pungent letters from the pen of their hero himself. In any case they demanded that the general assembly of 1885 order a complete reorganization of the university. They enlisted in the fight Confederate soldiers who could not bear the thought of a possible wrong to one of their idols. The visiting committee of the legislature made an exhaustive investigation and reported that they failed to find discord, that the discipline was good and that the work was satisfactory. They insisted that there was no foundation for the reported dissensions bequeathed by the old administration.

The friends of General Hill, however, succeeded. They secured the passage of a joint resolution dated April 1, 1885, requiring the board to reorganize the university. The resolution declared that the management of the institution was unsatisfactory, directed the board "to lower the course of study in the collegiate department to the former standard; to give enlarged powers to the president and to hold him responsible for the management; to reorganize the faculty, retaining the president and to keep the faculty reduced to the number required to meet the necessity according to the number of pupils in the collegiate department."

New Faculty.

The board regarded the resolution as practically mandatory to remove all members of the faculty save the president. Accordingly, on June 9 they vacated all chairs, reorganized the departments so as to reduce the number of professors from nine to seven, and adjourned to meet at Little Rock July 5 for the purpose of electing a faculty. Before adjourning the board instructed the president and the secretary to give public notice of the rearrangement of chairs and to call for applications. At the adjourned meeting they spent three days in electing a faculty. The first move appeared conservative and indicated that they would probably retain part of the old faculty, for they

elected Professor Leverett to the chair of ancient languages. But on the third day this action was reconsidered and he was dropped. They passed a resolution saying that their action in vacating the positions was no reflection on the professors and added, "Our whole purpose was to pass entirely out of the atmosphere of any dissensions that have in the past interfered with the usefulness and purposes of the institution."

Howard Edwards, A. M., was elected to the chair of English and modern languages. Professor Edwards was a Virginian by birth, an A. M. graduate of Randolph-Macon College and a special student of the University of Leipzig. He had been a teacher and principal of two or three high-grade academies. He retained his position in Arkansas until 1890, when he accepted the same position in the Michigan Agricultural College. He resigned this position two years later to accept the presidency of the Rhode Island State College, a position which he still occupies. Edward H. Murfee, a Virginian by birth, was elected to the chair of pure mathematics. He was an A. M. graduate of the University of Alabama, had filled the chair of military engineering in his alma mater and later had organized the Mississippi Military Institute, from which institution he came to the University of Arkansas. He became acting president in 1887 and was president from 1888 to 1894. Since leaving Arkansas he has filled various educational positions, now being dean of the faculty at Brenau College, Gainesville, Georgia. Jay Manuel Whitham, a graduate of the naval academy, was elected professor of applied mathematics and commandant of cadets. He remained at the university until 1891, since which time he has been engaged in practical engineering, with headquarters at Philadelphia. J. F. Howell, A. M., a Virginian by birth, was elected principal of the normal department. He received his education in Virginia and served in the Confederate army throughout the war. He came to Arkansas in 1873 and was connected with private and public schools until 1885. He remained in the university until 1898. George D. Purinton, a graduate of West Virginia University, was chosen professor of chemistry, mineralogy, geology and biology. He had filled various educational positions before coming to Arkansas. After leaving the university he filled for a time the chair of chemistry in the University of Missouri and later

practiced medicine at St. Louis until his death in 1898. Richard Henry Willis, a University of Virginia man, was elected to fill the chair of ancient languages and ancient history. After filling this position a few years, he left the university. In 1891 he returned as professor of English and modern languages, which position he held until 1898. Professor Willis was a strong man and a useful member of the faculty.

The resolution of the legislature and the action of the board under it gave rise to bitter criticism, especially of the board and of the president. The new faculty, however, was quite as strong as the one displaced. Within a year both the president and the board found themselves congratulating the State upon the happy selections. The reduction in the number of teachers threw too much work upon the instructors. The new faculty, however, was quite loyal to the president. At their first meeting they tendered him their warmest sympathy and pledged him their hearty coöperation. Again on November 21 they spread on their minutes another resolution expressing their confidence in him and their readiness to perform any duty assigned to them. The following June they are again ready to coöperate with him and are entirely satisfied with his work. In the light of recent events these resolutions may have had a meaning not apparent on the surface. By reason of restored harmony the faculty situation became decidedly better and the morals of the students improved.

Standards and Degrees.

The visiting committee from the legislature in 1885 took up the much debated question of the falling off of college students. They came to the conclusion that it was due to the high standards and therefore advised the lowering of entrance requirements so as to include the then sub-freshman year in the freshman class. By such a coup they said the number of collegiate students would be doubled. Why such a brilliant idea had not been acted upon sooner, the committee did not understand. The president had previously submitted that among other questions about reorganization to the faculty, but all professors except Conrad had advised against lowering entrance requirements. The legislative resolution calling for a

lowering of standards seems to have been left by the board to the faculty for such action as they deemed best. The faculty do not seem to have faced the question squarely. They took no official action on the subject and for two years made no statement regarding entrance requirements. President Edgar tried an experiment in the preparatory department by dropping the name and by dividing the classes, calling the two just below the college department the high school and all below these the grammar school. He thought such a plan would improve the spirit and discipline of the department. He also transferred the control of the preparatory department to the principal of the normal department. Both plans were dropped after a year's trial.

For the first fifteen years in the history of the university, while some graduate work had nominally been done, no course of study for graduate students had been outlined. In 1886 the faculty announced graduate courses leading to the A. M. and Ph. D. degrees. Candidates for the master's degree must have previously taken the bachelor's degree and were required to spend a year in residence and to complete a course prescribed by the faculty. Two years of graduate work were required for the doctor's degree, the last of which must be at the university. In addition a thesis and a reading knowledge of German and French were required. In July, 1885, the curriculum was recast so as to provide for four technical and three general courses. The technical courses were agriculture, normal, engineering and business; the general courses were English, general science and language.

Several efforts were made to revive the commercial course. In 1885 a two-year business course was announced, leading to the distinction, Graduate in Commercial Science. It was based on the common school branches plus industrial art, bookkeeping, commercial law, and lectures on psychology, ethics, and political science. The same course, somewhat modified, was announced again the following year. Just why in December, 1886, when this course was standing in the catalogue, President Edgar should have thought it necessary to propose to the board "a business course of two years, to meet the wants of those who wish to prepare themselves for commercial pursuits" is not clear. He was persuaded that such a course would be "both popular and useful," but no action was taken on his proposi-

tions. The following June (1887) there were eleven graduates in the business course. In 1891 the legislature appropriated $1,500 "for the establishment of a commercial department," but the department does not seem ever to have materialized. Indeed, the faculty and board seem to have taken no notice of the appropriation.

Notwithstanding the great amount of legislation by the State, the board and the faculty, the attendance gradually declined.

ATTENDANCE.

	1884-85	1885-86	1886-87
College	67	68	77
Preparatory	246	245	213
Others	52	41	37
	365	354	327

The appropriation in 1885 was also disappointing. Though the board had asked for a liberal appropriation so as to make possible the enlargement of the facilities for industrial and agricultural education, the legislature cut out all such items and allowed $39,800 for maintenance. The governor in view of the financial condition of the State advised against much of the appropriation asked for by the board.

THE AGRARIAN MOVEMENT.

From time to time artificial stimulants had been applied with a view to developing some interest in agriculture and mechanic arts. They had totally failed in the case of agriculture and had met with only partial success in engineering. The executive committee in a report to the board in 1884 thought it important that agriculture and mechanic arts be made prominent in the management of the university, but the funds at the disposal of the board made it impossible. The next legislature was asked for a special appropriation for the agricultural and industrial departments, but this was refused. Throughout President Edgar's administration a course in industrial art for girls was offered. It embraced drawing, designing, modeling, working in wood, metal and clay. In announcing the course in 1884 the faculty confidently believed that the "new education, in which manual training shall go *pari passu* with the intellectual and the moral * * * will be the education of the future." The industrial art

offered is the only serious effort ever made by the university authorities to provide industrial education of any kind for the young women.

The president in his report to the board in 1886 frankly admitted that, although branches relating to agriculture and mechanics arts had been taught, "little has yet been done towards applying the principles of science to the solution of the practical problems involved in the successful cultivation of the soil, or in the development of the mechanic arts." Upon the legislature he properly placed a large share of the responsibility for this failure because of the inadequacy of the appropriations. In this connection he showed that since the organization of the university the total state appropriation for it amounted to only $208,111, $111,386.76 of which was for site, buildings and equipments, leaving merely $96,724.24 for current expenses, or only $6,448 annually. Mississippi from 1880 to 1886 had paid out $726,038.66 for higher education, or over $100,000 a year. It was therefore a question whether the State wanted industrial education bad enough to pay for it.

But notwithstanding the failure of the legislature in 1885 to appropriate for agriculture and mechanic arts as requested, the board undertook to provide modest equipments in these fields anyway, hoping for future support from the legislature. The president in his annual report in that year discussed at length the problems before the university and advised that a beginning should be made. Accordingly, the board appropriated $1,500 for agricultural equipments, $2,500 for machinery and tools for shops, $500 for the industrial arts course for girls, and $600 for the purchase of Professor Harvey's collection of plants, fossils and minerals, representing the flora and mineral resources of the States. On account of insurance risks the shops were ordered out of the basement of University Hall and the old armory was converted into a shop and equipped with a boiler, forge, tools and machinery. It was ready for use by March, 1886. In the field of agriculture, Professor Purinton analyzed fertilizers and started experiments in oats, corn and fruit-growing. The board at their meeting in June, 1886, were pleased with the progress made.

This increased activity for industrial education on the part of the university authorities was probably stimulated by a politico-industrial movement in the State. The movement had its origin in agrarian organizations known as the Grange, Brothers of Freedom, The Wheel, and Farmers' Alliance, whose platforms called for radical reforms in the state government. This movement had been in progress for a decade but was just now reaching large proportions. Their demands, moreover, included the reorganization of the university. They said that it was the rich man's school, though the acts of Congress and of Arkansas upon which it was based designed it for the education of the masses in agriculture and the mechanic arts. This party came before the general assembly of 1885 with a bill, providing for the abolition of the classical department and other strictly cultural subjects, the reduction of the number of chairs to six, including mathematics, English, modern languages, chemistry, with related subjects, physics, agriculture, and mechanic arts. While proposed in the interest of science and the industrial arts, the scheme betrayed a narrow view of the needs of scientific and industrial education in the small teaching force and equipments proposed. The bill met a decisive defeat. But two years later the same measure slightly modified so as to admit of classical instruction by assistants was again introduced to provide facilities for agriculture and engineering. Within the two years the agrarian party had grown to large proportions and they wielded the controlling influence in the legislature of 1887. Though the bill was opposed vigorously by President Edgar, the board and others who came to their assistance, it passed both houses and became a law. President Edgar being out of touch with the new order of things resigned in June, 1887.

Buchanan Hall.

CHAPTER X.

THE ADMINISTRATION OF PRESIDENT MURFEE.

The incoming of President Murfee was coincident with, indeed a result of, the carrying out of the reorganization of the university as provided for in the legislative act of 1887.

This act contemplated a complete reorganization of the university, beginning with the board of trustees. It provided that the board should be "composed of members to be as equally divided as may be between agricultural, mechanical, and literary pursuits of life." There were to be six trustees distributed over the State by congressional districts and one at large, and were to hold office two years. The governor was to preside, and vote in cases of a tie. The offices of secretary and of treasurer were combined into one and the secretary-treasurer was made custodian of "the buildings and grounds pertaining to said university," as well as of the records and funds. It will be observed that the act put the board completely at the mercy of the governor every two years. This defect was cured in the act of 1891, which made the term six years, two retiring every two years.

The act further provided for the reorganization of the faculty and a revision of the courses of study. The faculty thereafter was to consist of six professors, three of whom besides the president should be in the literary and scientific department, one of whom should be styled the superintendent of agriculture, and one the superintendent of mechanic arts. The section dealing with the course of study read as follows:

> The course of study in said University shall embrace agricultural chemistry, animal and vegetable anatomy and physiology, the application of science and the mechanic arts to practical agriculture in the field, veterinary art, entomology, rural and household economy and horticulture, practical mechanic arts as taught in the workshops, the English language and literature, mathematics, civil engineering, philosophy, history and bookkeeping, including military tactics and such other natural sciences as may be prescribed. That in addition to the above described studies, each male student must be compelled, as a part of his education, to work

at least three hours each school day, either in the field or workshop, under the direction of their respective superintendents; the proceeds of labor to be paid for at such rate as may be prescribed by the board of trustees, to be applied to the payment of the board of such students.

The friends of the existing institution were able to save a little of the old order by getting inserted a clause stipulating that the trustees were not forbidden to have "taught such higher or other studies as are usually taught in universities," but students taking any subject other than those mentioned above were required to pay tuition.

This law was due to the granger agitation and may be said to have marked the high tide of the movement in Arkansas. The bill was drawn by Senator D. E. Barker and was passed by strong majorities, the grangers being masters of the situation, in spite of strenuous opposition by President Edgar and the board of trustees.

Not unnaturally the faculty became alarmed for their own welfare and the future of the university. The day after the bill was signed they voted to send a letter to the governor requesting him to appoint the board and set an early day for their meeting, in order that they might have an opportunity, if necessary, to look for other positions. Three days later they voted to reconsider this action and to send a letter of an entirely different tenor. No mention was made of the question of tenure. Attention was called to the fact that three members of the board had never seen the university and were unacquainted with the faculty; that a new dormitory was to be erected, for which plans and specifications should be provided at an early date; that it was of the highest importance for the future welfare of the institution that some outline of policy be announced at once and that the course of study be promulgated before the close of the session in order to quiet the prevailing unrest among the students and prevent a loss of numbers. In view of these facts the governor was urged to call a meeting of the board at the university at an early date. Soon after signing the bill Governor Hughes proceeded to name the trustees, selecting the following gentlemen: W. F. Avera, Camden; W. M. Fishback, Fort Smith; J. W. Keesee, Latour; James Mitchell, Little Rock; W. B. Welch, Fayetteville; and C. M. Taylor, South Bend. No one of these men had served on the board under the old law. Follow-

ing the suggestion of the faculty he called a meeting of the board, which assembled at Little Rock, April 18, 1887.

President Edgar attended this meeting and presented a paper recommending a course of study which was merely received and filed. The board announced their purpose to reorganize the faculty in compliance with the law and also that ancient and modern languages would continue to be taught. Practically nothing else of consequence was done at this meeting except to instruct the executive committee to secure plans and specifications for the new dormitory authorized by the Barker act and advertise for bids.

The faculty then took up the matter of the curriculum and worked on it at times until after the board adjourned in June. When the board came together a committee on curriculum was appointed consisting of trustees Mitchell, Welch and Fishback. The committee declared that it was the "duty of the faculty, without ignoring other studies, to adopt a course which shall have as its leading feature instruction in agriculture and the mechanic arts." Again and again the committee declared that the main emphasis must be put upon these two subjects. "Upon these and the practical results of the farm and work shops depend the future of the university. The farm must begin to turn out agricultural products, and the mechanical department must, in like manner, demonstrate in a practical substantial way the training of its students. If literature and the classics are permitted to overshadow the subjects mentioned, the university is doomed. If the faculty can demonstrate to the people of Arkansas that practical and successful farmers and skilled mechanics and artisans can be graduated from an industrial university—rightly named—the permanent success of that university is assured. This work must be achieved by the faculty."

The committee found it no easy task to formulate a curriculum which would comply with the law, which required certain things to be taught and about half the student's time to be spent in field and shop work, and at the same time allow an "opportunity to study any of the numerous subjects usually embraced in the university course." In view of these difficulties they appealed to the faculty to submit a course. The faculty, having been at work on the matter all the spring in view of the fact that they might be called on for such help, were

soon ready to report. They offered nine different courses, the agricultural (B. S. A.), general science (B. S.), mechanical engineering (B. M. E.), civil engineering (B. C. E.), short agricultural course, short mechanical arts course, young ladies' course (B. S. or B. Let.), classical course (B. A.), and the normal course (L. I.). Any one taking either of the last two must pay tuition.

The noteworthy thing about these courses is the great amount of arts and science studies in the so-called agricultural and mechanical courses and the manual labor required of classical students. All recitations closed at 12:20 and the afternoon was devoted to "practical exercises." The freshman B. A. devoted the morning hours to algebra, English, Greek, or French, physics, and Latin, and the afternoon to "farm or shop," "draw and drill." The faculty, never enthusiastic for these "practical exercises," induced the legislature of 1891, through the efforts of Senator Tillman, to abolish them for all above freshmen. In 1892 the faculties of instruction were divided into "schools," namely, of agriculture, of mechanic arts and engineering, of science, of liberal arts, the normal school, and the university high school (preparatory). A year later "college" replaces "school," and a "dean" was elected for each, but this was not kept up.

Following out the policy of reorganizing the faculty the board decreed the establishment of the following chairs: President of the faculty, teaching mental philosophy and ancient languages; superintendent of mechanic arts and mechanical and civil engineering; superintendent of agriculture; chemistry, theoretical and applied, and mineralogy and veterinary art; mathematics, logic and astronomy; biology, geology and physics; English and history and instruction in modern languages.

The election of a president was deferred and the senior professor, E. H. Murfee, who had held the chair of mathematics, was designated acting president, and professor of mathematics and logic. J. M. Whitham, who had held the chair of applied mathematics, was made superintendent of mechanic arts. Howard Edwards, of the old department of English, modern languages and modern history, was retained in the new chair of English and history and instructor in modern languages. George D. Purinton, of the department of chemistry, was

elected superintendent of agriculture, etc., but resigned in August, when A. E. Menke was elected and S. S. Twombly was made adjunct professor. The chair of biology was filled by the election of F. W. Simonds, Ph. D. Miss L. M. Hale was designated instructor in ladies' industrial art, and Miss Katy V. King instructor in music. R. H. Willis, who had been a full professor before, was retained as adjunct professor of ancient languages. The position formerly known as professor in the normal department was replaced by "senior assistant and instructor in pedagogics" and was filled by the election of J. F. Howell. July, 1887, Lieutenant E. K. Fletcher was detailed to act as professor of military science and tactics. Besides these there were other adjuncts and instructors, some of whom seem to have been employed by the acting president.

When the election of a president was deferred the executive committee was instructed to search for a suitable man by correspondence. In November three applicants were invited to come before the board and express their views "on the conduct and management of industrial schools." What their views were is not a matter of record, but evidently they were unsatisfactory to the board as the election was again postponed. August 30, 1888, Colonel Murfee was unanimously elected "president of the faculty" and was relieved of his duties in the department of mathematics by the election of Colonel O. C. Gray.

Edward Hunter Murfee was born in Virginia, but was educated in the University of Alabama, where he subsequently held the chair of military engineering. Later he taught English in the University of Tennessee, after which he organized the Mississippi Military Institute. From this institution he came to the chair of mathematics and logic in the University of Arkansas in 1885. By continuous re-election, after 1888 he served as president until the close of 1893.

There were no revolutions in the faculty during this period, but several changes of importance occurred. In the department of mechanical engineering Professor Whitham was succeeded by Professor C. V. Kerr in 1891. In English Professor Edwards was succeeded in 1891 by Professor R. H. Willis, transferred from the position of adjunct professor of ancient languages, to which work Professor C. H. Leverett was recalled. Professor J. F. McNeil took

charge of the department of biology in 1891 in place of Professor Simonds. The military department was in charge of three men during this administration, Captain E. L. Fletcher 1887-1890, Captain R. C. Cabell 1890-92, and Major R. W. Dowdy, 1892-94.

An attempt was made to regulate salaries by law in the act of 1887. It provided that the salary of the president should be $2,000 per annum, payable quarterly; that of the superintendents of agriculture and of mechanic arts $1,600 each; that of the other full professors $1,500 each. In their first annual report the board of trustees called attention to the fact that these salaries were lower than those paid by any other state university in any state of population and resources equal to the same in Arkansas, that the university was constantly losing her best men on account of low salaries, and they suggested that this matter should be left to the determination of the board. Nothing was accomplished in 1889, but the suggestion was incorporated in the act of 1891. The board took advantage of this provision at its next meeting and raised the salary of the president to $2,500. The other changes were, superintendents of agriculture and of mechanic arts $2,200 each; professors of mathematics and of biology $2,000 each; professor of English and modern languages $1,800; adjunct professor of ancient languages and of English and pedagogics $1,500 each; all others ranged from $1,200 to $600.

On the subject of tenure no advance was made. The board resolved that all positions became vacant at the end of each year and that they would rigidly adhere to the rule previously adopted for annual elections.

A few important changes were made in the organization of the departments. The ladies industrial art department was abolished after June, 1889, on the ground that the legislature had made no provision for it. March, 1890, a law department was provided for, but it failed to materialize and was soon dropped. In January, 1893, the law school at Little Rock was adopted as a department of the university. At the end of 1891 history was separated from English and the chair of history and pedagogy was established. At the same time the foundations were laid for the department of geology and mining by the addition of an "expert in geology" to the department of biology,

geology and mining. At the request of the faculty, the board restored the department of ancient languages to its former position of equality.

The appropriations for the period of this administration were as follows:

	University.	Ex. Station.
1887.		
State	$60,000 00	
U. S.		$30,000 00
1889.		
State	$36,000 00	
U. S.	11,909 09	30,000 00
Total	$47,909 09	
1891.		
State	$52 200 00	
U. S.	23,797 92	30,000 00
Total	$75,997 92	
1893.		
State	$29,600 00	
U. S.	26,909 04	30,000 00
Total	$56,509 04	

The largest item in the state appropriations was for salaries, ranging from $23,000 in 1887 to $32,200 in 1891 and $20,000 in 1893. The other large items were for buildings and equipments. In addition to the above the university enjoyed an income of $10,400 a year from the Washington County and Fayetteville bonds. All new students were charged a matriculation fee of $5.00 and all non-beneficiaries a tuition fee of $10. In July, 1891, the board directed the return of tuition paid the previous March on the ground that the law requiring it had been repealed shortly after that, but the tuition requirement continued to be published in the catalogue.

In 1872 Senator Morrill began active efforts to secure funds for the further endowment of the institutions created under the act of 1862. At the same time attempts were being made by others to have the proceeds of the sales of public lands devoted to common school education. A compromise bill was introduced fixing a maximum

of $50,000 for higher education and an indefinite amount for the common school fund. Though favored by a majority in each house, the bill was defeated by active opponents. One of these opponents was Mr. James Monroe, who had been a professor in Oberlin College, Ohio, and was then a member of the house. He secured the passage of a resolution directing the committee on education and labor to make a searching inquiry into the condition and management of the land grant colleges. Mr. Monroe confessed himself converted by this report and thereafter was a firm friend of these institutions. However, nothing was accomplished immediately and later the measure was side-tracked by the famous Blair educational bill. But in 1890 Senator Morrill had the satisfaction of securing the passage of a law to carry out his ideas.

This act appropriated $15,000 for the year ending June 30, 1890, "for the more complete endowment and maintenance of colleges for the benefit of agriculture and mechanic arts," and further provided that there should be an annual increase of $1,000 over the appropriation of the preceding year until the annual sum reached $25,000. States which maintained separate institutions for white and colored were required to divide the fund in an equitable ratio. In accepting the grant Arkansas provided that eight-elevenths should go to the university at Fayetteville and three-elevenths to the Branch Normal College.

The most important building erected during this administration was the dormitory for boys, which has since been named Buchanan Hall. During the preceding administration the board had tried in vain to secure appropriations for this purpose. "For the purpose of cheapening the board of beneficiaries, and for the further purpose of better discipline," the act of 1887 appropriated $17,000 for a dormitory. Only beneficiaries were to be allowed rooms in it, unless they were not sufficiently numerous to fill it. The building was ready for occupancy March 31, 1888. The legislature of 1889 had directed that the basement of University Hall be fitted up for the shops and appropriated $7,000 for machinery and tools. The insurance companies had already objected to keeping the shops in the main building and the people occupying the rooms above complained of the noise and fumes from the shops. Because of this the old armory had

been fitted up to receive the forges and such things as caused danger from fire. The imperative necessity of removing all such things from University Hall was pointed out to the legislature of 1889 and it appropriated $5,000 for a shop building. The legislature of 1893 gave $2,000 for a chemical laboratory.

The framer of the Barker bill was not in sympathy with the existing administration in its effort to establish industrial training for girls as well as for boys. As originally drawn the bill excluded them from the privileges of becoming beneficiaries, but their friends secured the insertion of a section providing that this feature should not take effect until 1889. By that time they were strong enough to secure its repeal, but they failed to get any appropriation for the industrial arts department and it was dropped.

The amount of manual labor, or "practical exercises," required of students by the act of 1887 has already been given. For this they were to be paid from three to ten cents an hour and this was to be applied in payment for board at the dormitory. Although classical students were required to labor they were not allowed to reside at the dormitory unless there were not enough agricultural and mechanical students to fill it. Also, while agricultural students were getting ten cents an hour, and mechanical students five cents, the classical students received only three. However, in 1889 all were put on an equality of ten cents an hour. As the enthusiasm for manual labor began to cool the faculty grew bold enough to count drill and laboratory work as a part of the required work. Not being rebuked for this they followed it up as their interpretation of the act of 1891, which, at their request, had reduced the amount of work required from three to two hours a day. The appropriations for student labor were 1887 and 1889, $5,000 each, 1891, $7,000, and 1893, $2,000.

One thing which impresses the student of this administration, as well as of some others, is the almost complete dominance of the board. The faculty hardly dared to do anything on their own responsibility. If a stove was to be bought for the library or desks for recitation rooms, the board did it through its executive committee or the secretary. Not only the general curriculum must be approved by the board, but also the courses in any particular department. The faculty even asked the board if they might allow students to take

up extra studies. The board "authorize and request" the faculty to prepare the manuscript for the catalogue and then appoint a committee to examine and approve it. It does not seem to have been any part of the president's duties to find suitable men to fill vacancies in the teaching force, the secretary of the board being directed to look after this. Perhaps the thing which proved most vexatious to faculty and students alike was the change of vacation. At the June meeting in 1887 the board directed that the next session should begin September 5 and close December 2. Thereafter the regular session was to begin the first Monday in March and closed about the first of December, making the vacation in the winter. The reason given for this was that the agricultural character of the school demanded that the students should be in attendance during the crop season. Another reason was the belief that it would be beneficial to the health of the students. Repeated petitions from the faculty for a return to the old plan of a summer vacation were without avail.

The following table of attendance gives some idea of the results of the attempt to bring into greater prominence the industrial features of the university. Preparatory students are not included in the figures for 1893.

STUDENTS IN	1888	1889	1890	1891	1892	1893
Agriculture	4	70	66	33	49	3
Engineering	94	92	128	76	86	42
General Science	46	73	162	202	146	28
Classical	66	69	89	75	119	91
Normal	56	39	34	30	52	14
Irregular	9	10	11	2	13	..

The efforts in behalf of the engineering department were not without good results, but the attempt to push agricultural education to the front proved a failure. Several explanations may be offered for this failure. No teachers who were experts in, or enthusiastic for, the subject were employed. The advancement of agricultural education was sought at the expense of the liberal arts which were discredited in the act of 1887 and almost outlawed. The attempt was in advance of the demand. This seems to have been true in most of the other states. The most noteworthy result here was a serious blow to the college of liberal arts from which it took years to recover.

CHAPTER XI.

THE ADMINISTRATION OF PRESIDENT BUCHANAN.

At a special meeting of the board held in Little Rock January 8, 1894, Dr. John L. Buchanan was elected president. Dr. Buchanan was born in Virginia (1831) and was educated at Emory and Henry College, where he also taught several years after graduation. During the Civil War he served in the ordnance department of the Confederate government. In 1878 he took charge of the department of Latin in Vanderbilt, but left two years later to assume the presidency of his alma mater. Later he served as state superintendent of public instruction in Virginia. After the expiration of his term he went to Randolph-Macon College as professor of Latin, from which place he was called to the University of Arkansas. He arrived in Fayetteville March 3, attended a faculty meeting two days later and the following day the session of 1894 began.

The entire instructional force of the university now numbered thirty-two exclusive of the experiment station staff, being one more than for the preceding year. Nine of these were in the preparatory department as against six the preceding year. The faculty proper consisted of professors and associate professors, the latter being a new rank just introduced, and numbered seventeen counting the president. The principal of the preparatory department was invited by the faculty to meet with them and the board was requested to make him a member. Several years later (in 1900) the board defined the faculty as consisting of professors, associate professors and the principal of the preparatory department. At that time there were sixteen professors and five associates. At the close of this administration in 1902 the instructional staff numbered thirty-four exclusive of the station staff and also of the president who had ceased to give instruction a year or two before. The net gain then may be given as three, all in the faculty proper, which now numbered twenty. The preparatory force had again been reduced to six. The position of adjunct professor had been revived in 1901 as standing between associates and instructors.

The tenure of all the faculty, including the president, was for one year. In his first report Dr. Buchanan devoted a paragraph to the subject of tenure, recommending that it be made permanent conditioned on good behavior and efficiency. The board not only paid no attention to this, but, a few years later (1899) resolved that no teacher or employe of the university should be elected until after commencement.

With the experiment station staff the board for a while pursued a different policy. Recognizing that some experiments must extend over a series of years, this was given in 1894 as a reason for electing the director and all the staff for a period of four years. At the end of this period, however, this rule was rescinded, though the director was elected in 1899 for four years. In his last report Dr. Buchanan again reverted to this subject and told the board very plainly that the uncertainty of tenure was one cause of the frequent resignations and that such a condition did not "favor an identity of the personal interests of professors with those of the university, or promote a spirit of loyalty and devotion to the institution, or encourage the promotion of plans to develop and strengthen departments through consecutive years."

The question of permanency of tenure has been a matter of legislative action and of judical decision. In June, 1899, the board of trustees created "the office of vice director and pomologist of the agricultural experiment station" and appointed W. G. Vincenheller to the same for four years at a salary of $2,000 per annum. As a part of his duties he was required to hold agricultural institutes in different parts of the State. By act of May 23, 1901, the legislature abolished the office of pomologist and prohibited the board from allowing the incumbent any pay for his services. The incumbent thereupon applied to Judge John N. Tillman, of the circuit court, for a write of mandamus to compel the payment of his salary and attacked the validity of the act forbidding such payment on several grounds, among them that it tended to impair the obligations of a contract. The petition being denied an appeal was taken to the supreme court, but the decision of the lower court was affirmed by four out of five justices. Speaking for the majority, Mr. Justice Battle held that the position in question was a public office and that the act

abolishing it did not impair the obligation of a contract, "for the duties and obligations of an officer grow out of the law, and not out of contract." In a vigorous dissenting opinion, Chief Justice Bunn combatted the definitions of public office accepted by the majority and pointed out that, under such a definition, "every teacher of the smallest district school would be a public officer. He also cited a decision of the supreme court of Wisconsin to the effect that "a professor in the state university is not a public officer in such a sense as prevents his employment as such creating a contracted relation."

Few changes were made in the faculty at the time of the election of Dr. Buchanan. Elias Chandler, first lieutenant, 16th infantry, U. S. A., arrived a few days before Dr. Buchanan and took charge of the military department. Professor B. J. Dunn succeeded Mrs. A. M. Tyler as head of the preparatory department because the board thought it better to have a man there. Professor John C. Futrall was elected to the chair of Latin and entered upon the discharge of his duties in July. The following year Professor W. N. Gladson and Miss Ida Pace entered the faculty. In June, 1895, Professor Harrison Randolph succeeded Professor O. C. Gray in the chair of mathematics, and a year later E. F. Shannon became associate professor of ancient languages. Professors George M. Peale and A. H. Purdue were added to the faculty in 1897 and S. J. McLean a year later. Wm. P. Stone, first lieutenant 6th artillery, U. S. A., succeeded Lieutenant Chandler in the military department in February, 1898, and served the rest of the year, when W. A. Ross, a graduate of the university, was designated acting commandant. Professors J. W. Fertig, Junius Jordan, Ernest T. Bynum and C. E. Houghton all came in 1898, and Professors F. W. Pickel, A. F. Lewis and Ernest Walker a year later. At the same time the military department was left in charge of a member of the senior class, J. L. Harnor. Two changes were made the following year, Professor W. A. Read entering the department of English, and Captain G. K. Spencer taking charge of the military department. Professor Lewis was absent on leave during 1901-02, when his place was filled by Professor A. C. Barrows, and J. W. Kuykendall took charge of the preparatory department. The changes had brought about an almost entirely new faculty in eight years, only

two remaining at the close of Dr. Buchanan's administration who were there at the beginning as members of the faculty, though there were three others in attendance on the first faculty meetings who became members soon thereafter.

The custom of granting leave of absence to members of the faculty was begun in 1897, when three months were given to Professor Menke in order that he might pursue graduate work in Germany. In December, 1898, a year's leave of absence was granted Professor Futrall with permission to select his own substitute, who was to be paid only for the time he actually taught, the rest of the twelve installments going to Professor Futrall. This is the nearest the board ever came to granting leave of absence with continuance of pay, though Professor Menke had employed and paid his substitute. Several were granted leave of absence in the next few years, but in 1900 the board practically reversed its former liberal policy by ordering that, in future, no employe was to receive any part of his salary during vacation unless he rendered some service for it. The legislature of 1901 even went so far as to forbid the board to grant leave of absence except for actual sickness of the teacher himself.

The question of courses of study and degrees began to agitate the faculty in 1897 and was not finally disposed of until two years later. It was started in January, 1897, by a motion to confer the B. A. on all students completing the work then laid down for the B. S., provided that a committee should be appointed to determine the minimum amount of language to be required. The committee appointed to consider this matter failed to agree and presented majority and minority reports. After "long discussion" a sort of compromise was finally effected. The courses leading to the B. A. were increased in number so as to include courses with science as a major; the minimum amount of language was to be four full-year courses of three hours each, one of which must be Latin; of mathematics, one three-hour course; the amount of science was left for future determination. A special course was to be arranged for the B. S.

Here the matter seems to have rested for about a year when it was again taken up. The committee appointed to consider the subject reported in favor of two degrees, the B. A. and B. S., the details of which are given elsewhere, and this report was adopted. This proved

unsatisfactory, however, and in December, 1898, a committee consisting of Professors Futrall, Menke, Purdue, Bynum and Fertig was appointed to remodel the courses. This committee, composed of three arts and two science men, made its report in the following January, but the differences between the arts and the science men seemed irreconcilable. Finally a new committee consisting of three science men was ordered and the president was asked to sit with them as a sort of umpire. They were instructed to make the courses for freshmen and sophomores uniform, allowing limited options but no electives.

The committee does not seem to have followed instructions, but reported three courses leading to the B. A., B. Ph., and B. S. degrees respectively and this report was adopted. Tired of repeated alterations and perpetual discussion the faculty ordered that the courses should stand as adopted without material change for at least four years. A rule previously adopted prohibiting substitutions for required studies was rescinded. The graduate courses leading to the Ph. D. were dropped. No further changes in the courses themselves were made within the four years. In 1900 the recitation periods were reduced to fifty-five minutes.

On the question of honorary degrees the faculty was inclined to be conservative and in 1901 declared against conferring the D. D. on any one.

This administration marked a noteworthy period in the development of the departments. The division of the department of ancient languages into the departments of Latin and of Greek in 1894 was found to be in advance of the needs of the institution and was abandoned the following year. The subject of geology was definitely detached from that of biology and the department of geology was created in 1896. The following year marked the separation of the work in the technical school into three departments, that of mechanical engineering, that of civil engineering, and that of electrical engineering. Some of these changes were perhaps forcing themselves on the university in the natural course of its development. To Dr. Buchanan, however, must be ascribed the chief credit for creating the department of economics and sociology. So insistent was he for these subjects that he taught economics himself for two or three years. Finally, in

1896, the board was induced to establish the chair, but it was not filled until the following year by calling S. J. McLean. Following close upon this came the separation of history and pedagogics and the creation of two departments, history in one case and philosophy and pedagogy in the other. The departments of elocution and physical culture and of art were virtually reorganized and provided with quarters.

In the matter of the agricultural school there is a noticeable reaction in this period from the efforts made to stimulate it in the later eighties. This was a confession that the efforts previously made in this line were either misdirected or in advance of the time. Dr. Buchanan was inclined to the latter view. In consequence the so-called school of agriculture was reduced to a mere department with four subordinate departments. For one year of this period only one student of collegiate grade was enrolled in the agricultural course.

Meantime the technical school was showing a healthy growth. In 1900 the governor was asked to recommend to the legislature the establishment of a textile school, but no further steps have been taken in this direction.

In 1898 the board invited all evangelical churches to establish chairs of biblical literature or theology in the university, with the assurance that students pursuing such studies would be admitted to the classes of the academic department on the same terms as other students. So far no denomination has responded.

The only department permanently abolished was the so-called department of pharmacy, which was swept away by the legislature of 1895.

The appropriations for this period were as follows:

	State.	U. S.	Ex. Station.	Totals.
1895	$51,450 00	$29,818 17	$30,000 00	$111,268 17
1897	67,300 00	32,727 27	30,000 00	130,027 27
1899	69,550 00	35,626 25	30,000 00	135,176 25
1901	91,750 00	36,343 43	30,000 00	158,093 43

The largest single item was that for salaries, beginning with $25,000 in 1895 and reaching $40,000 in 1901. This increase was mainly due to additions to the teaching force rather than to increase of individual salaries. As a matter of fact there had been some

reductions as well as a few increases. In 1895 the salary attached to the department of chemistry and that of mechanic arts was reduced from $2,200 to $2,000 and that of biology from $2,000 to $1,800, while that of ancient languages was raised from $1,700 to $1,800, that of history and pedagogy from $1,600 to $1,800 and that of the associate in mathematics from $1,300 to $1,500. The reductions were not in harmony with the views of Dr. Buchanan, who told the board that the laborer was worthy of his hire and suggested increases. In 1900 only four departments carried with them salaries of $2,000—ancient languages, mathematics, geology, and philosophy and pedagogy. The professor of biology received $1,800; all others $1,500.

The rules governing fees were changed several times during this administration. At the beginning, in 1894, all new students were required to pay a matriculation fee of $5.00 and all non-beneficiary students were charged $10.00 per session. The legislature of 1895 required the board to apportion the beneficiaries—the number having been previously fixed at 1,000 in all—among the counties according to population. The selection of the appointees was left to the county judges. If any county failed to fill up its quota, the president of the university was allowed to do so by appointments from other counties. The following year the board made the matriculation fee of $5.00 payable once in four years, required a contingent fee of $3.00 of all except new students and a tuition fee of $30.00 per year of all non-beneficiaries. When the legislature of 1897 required all students appointed as beneficiaries to a county of which they were not resident to pay a fee of $10.00, the board relieved all such of the contingent fee of $3.00. In July, 1897, the board ordered that in future all students should be charged a diploma fee of $5.00. In 1896 Dr. Buchanan had recommended that the matriculation fee be made payable annually by beneficiaries and that non-beneficiaries be charged $30.00 without any matriculation fee, but this was not adopted until 1899. In 1895 the refunding of fees, or parts thereof, to students leaving the university had been left to the discretion of the president. Hereafter no fees were to be returned without the order of the board.

Unfortunately, the treasurer's reports do not show the amount of money received from any of these sources. In fact very few of the

treasurer's reports have been prepared in a form available for historical purposes. The report for 1901-02 has an item marked "contingent, $8,207.24." The presumption is that the greater part of this was collected out of the fees. Besides these sources of revenue the university had an income of $10,400 from the endowment funds invested in Washington County and Fayetteville bonds.

The appropriation bill for 1899 contains this section: "The name of the Arkansas Industrial University is hereby changed to the University of Arkansas." For several years the feeling had been growing that the old name was a misfit. Dr. Buchanan took advantage of every opportunity to call attention to this fact with the results just indicated.

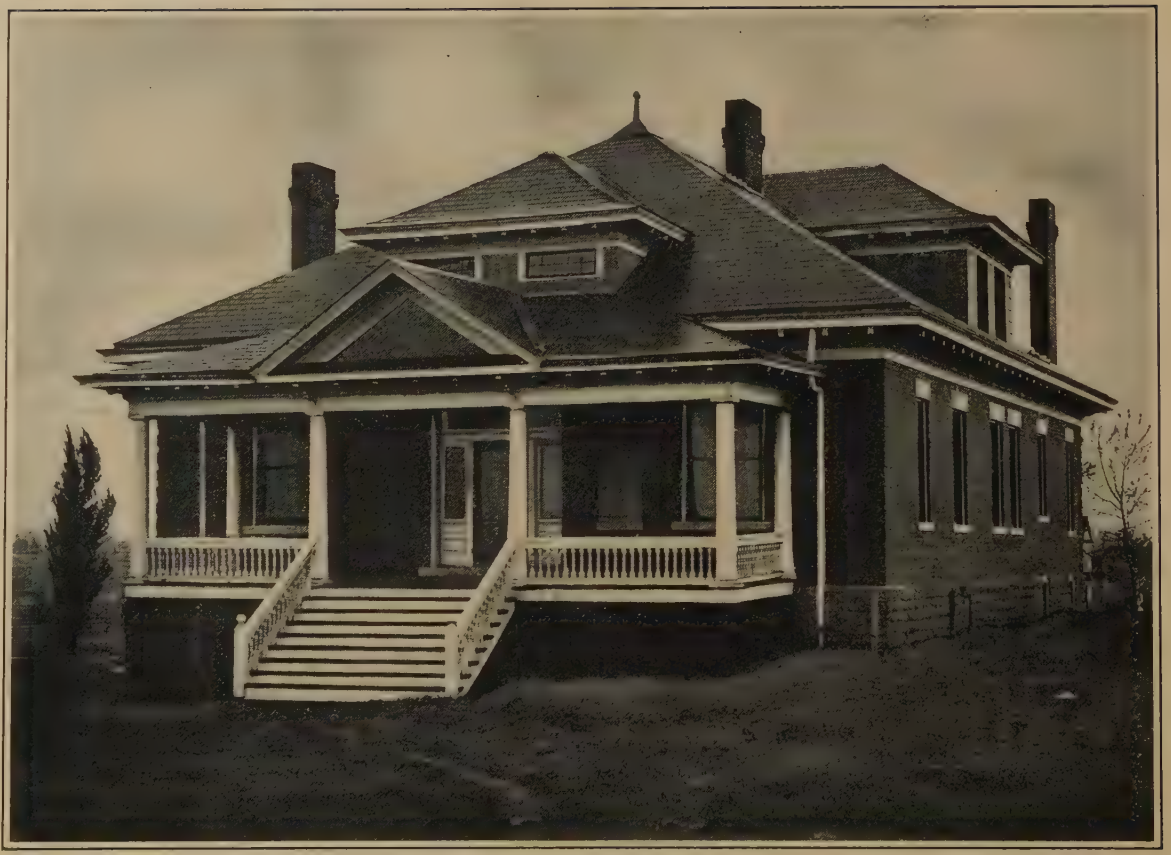
In the matter of buildings this can not be said to have been a constructive period. Mechanic Hall was erected in 1897 to replace the wooden building destroyed by fire in April, 1895. In 1901 this was enlarged at a cost of $2,000. In 1901 a dormitory for boys, known as Hill Hall, was erected at a cost of $10,000. Other buildings were a plant house and office rooms for the experiment station, and a cottage residence on the farm. The stone wall around the campus was begun, a sewerage system was installed, the athletic grounds were fenced and a grandstand was erected. The president's dream of a woman's building for the accommodation of female students was not realized during his administration.

During this administration the idea began to be worked out that the university not only existed for the people, but that it must go after them. In 1894 the board simply appropriated $1,000 for advertising, but in 1899 they appropriated $500 to pay the expenses of the principal of the preparatory department and the professor of pedagogy who were directed to go out in the byways and hedges and compel them to come. The credit for this probably belongs to the president and the faculty, who had discussed ways and means of increasing attendance and had appointed a committee to consider plans. The following year the appropriation was increased to $600 and the president joined the campaigners. Undoubtedly the student-labor fund was a strong drawing card. In his last report Dr. Buchanan stated that about one hundred had profited by this.

The curve of attendance for this administration shows some unsatisfactory wanderings. After 1894 there was a steady decline in attendance until 1898, falling from 613 to 478. The financial condition of the country undoubtedly was largely responsible for this. The year 1898-99 showed a gain of only two. By this time the country was beginning to recover and the faculty were getting more active in campaigning for students. The result was 655 for 1899-1900, but a decline again set in and the number had fallen to 606 in 1901-02. However, there was a gain in the proportion of collegiate to preparatory students.

After repeated petitions on the part of the faculty and students the board at last consented (1895) to a change of vacation from winter to summer. This necessitated a short session extending from March 5 to July 17, 1895. Since then the sessions have begun in September and ended in June. The change affected most the senior class. They were required to return and remain throughout the first term of the session of 1895-96. Many remained to the end of the year. The reason why the board hesitated to make the change was the fear that the supposedly rigorous winter would affect unfavorably the health of the students, but no such results followed and there has never been any thought of returning to the winter vacation.

The position of the president remained at the end of this period about what it was at the beginning, a presiding officer in the faculty and a channel of communication between the faculty and board. A good part of the president's time was taken up with disbursing the student-labor fund and approving accounts. He also taught until near the close of his administration. Board and faculty government prevailed. Often the board selected the teachers without even consulting the president and sometimes in opposition to his known wishes. He was not always invited to be present at the board meetings. Within the institution faculty government prevailed, both in the matter of general policy and in minor details, such as discipline. Harmony did not always prevail among the departments, especially between the technical departments on the one side and the arts departments on the other, though the president served as a mediator.



Infirmary.

CHAPTER XII.

THE ADMINISTRATION OF PRESIDENT HARTZOG.

Some time in advance of the commencement of 1902 Dr. Buchanan signified to the board that he wished to retire on account of advancing age and ill-health. At the June meeting the board asked him to serve until August 1 and the same day elected Professor Harrison Randolph, who had formerly occupied the chair of mathematics and astronomy. Professor Randolph required as a condition of acceptance that his tenure and that of the faculty be made more permanent and that he have greater freedom in the choice of the faculty. These conditions were rejected by the board in a called meeting at Little Rock, July 15, 1902, and Dr. Henry S. Hartzog was elected for one year.

Henry S. Hartzog was born in South Carolina (1866) and was graduated from the South Carolina Military Academy in 1886. Later he graduated from the Southern Baptist Theological Seminary at Louisville. He then began teaching and served as principal of Johnston Institute until 1897, when he was elected president of Clemson College and director of the South Carolina Experiment Station. From this position he was called to the University of Arkansas.

Numerous changes had already been made in the personnel of the faculty. Associate Professor J. W. Carr became professor of English, H. A. Millis took charge of the department of economics and sociology, W. S. Johnson, philosophy and pedagogy, J. H. Reynolds, history, A. M. Muckenfuss, chemistry and physics. Professor C. E. Houghton resigning the following January, B. N. Wilson was designated acting professor for the remainder of the year, when he was elected professor. Lanning Parsons, captain 9th regiment of cavalry, U. S. A., took charge of the military department February 22, 1903. The faculty now numbered nineteen. Besides these there were two adjuncts and twelve instructors including the teachers of music, making thirty-three There were also three members of the station staff not included in the foregoing.

Few changes were made the following year. C. H. Brough took charge of the department of economics and sociology, W. G. Vincenheller became director of the experiment station, and the director of music, Paul Schmolck, was made a member of the faculty. Slight changes were also made in the form of organization in the way of a nearer approach to the university system. The departments giving instruction in arts, science and technical subjects are denominated "The College," the department of music "The Conservatory of Music and Arts," and the preparatory department "The Preparatory School." The experiment station had always had a separate existence. The instructional staff of the college numbered twenty-three and a machinist, of the preparatory school eight, and of the conservatory six, making thirty-eight in all, besides three men in the station not included above. The increase had come, three in the conservatory and two in the preparatory school.

In 1904 G. A. Cole became professor of agriculture and Miss Hazel A. Yates became director of music. R. B. Powers, captain 7th cavalry, took charge of the military department in January, 1905. The instructional force was increased by the addition of A. A. Steel to the department of geology and mining with the rank of associate. The departments of chemistry and electrical engineering also were strengthened by the addition of one instructor to each. The preparatory force was raised to nine. The station staff was increased by the addition of an instructor in dairying, and J. H. Norton became chemist. Except for the conservatory of music and arts no new departments were created during this administration, though the foundations for the dairy department were laid at this time. The faculty was increased by one and the entire instructional force had been raised from thirty-three in 1902 to forty in 1905.

This increase hardly kept pace with the growth in attendance and the real needs of the university. The total attendance at Fayetteville had increased from 606 in 1902 to 810 in 1905. The collegiate department had leapt from 234 to exactly 400, and the preparatory department had increased from 347 to 410. This increase was no doubt due in part to the increased activity in the line of campaigning for students. The president being an excellent public speaker, was

in demand for addresses in all parts of the State. He was a vigorous advertiser, also, and took part in the summer campaign work and was assisted by more members of the faculty than had ever gone out before. A weekly bulletin, called the "University News Letter," was issued and sent out to the press and individuals all over the State.

The appropriations show increasing liberality on the part of the legislature, though still not up to the needs of the institution.

	University.	Ex. Station.	Total.
	1903.		
State	$125,838 11		$125.838 11
U. S.	36,565 65	$30 000 00	66,565 65
Totals	$162,403 76	$30,000 00	$192,403 76
	1905.		
State	$180,321 11	$35,500 00	$215,821 11
U. S.	36,565 65	42,000 00	78,565 65
Totals	$216,886 76	$77,500 00	$294,386 76

The salary item of $40,000 in 1903 was raised to $50,000 in 1905. The president's salary had remained at $3,000. Only four professors were receiving as much as $2,000 each. At the beginning of this administration (1902) the board abolished all student fees except those for matriculation and graduation. Up to 1902 the university continued to receive $10,400 a year from the Fayetteville and Washington County bonds. In the readjustment effected at this time the rate was so reduced that the income amounted to only $3,930 per annum.

Dr. Hartzog's term may very fitly be called a building administration, although the greater part of the actual work of construction was carried out under his successor. In June, 1903, $25,000 was appropriated for an Engineering Hall, shops and equipment. Two years later $8,000 was added for the completion of the building which now accommodates all engineering departments. The repeated calls for more dormitory room at last bore fruit (1905) in the appropriation of $20,000 for a boy's dormitory and $35,000 for a girl's dormitory. With these sums were erected the buildings known as Gray Hall and Ella Carnall Hall. The latter being for girls, was very fitly named

for a popular teacher who had died in the service of the university. The same year a new chemical building was provided at a cost of $18,000 and an infirmary at a cost of $5,000. There was also an appropriation of $12,000 for agricultural and horticultural buildings with the stipulation that $9,000 should be used at Fayetteville and $3,000 at the branch stations. With the former sum was erected the building known as the Agricultural Building. A dairy building costing $5,000 closes the list of gifts by the legislature of 1905. The gymnasium and the geology building asked for had to wait. There were, however, other improvements in the nature of a heating plant for the boy's dormitory costing $6,000 and sanitary improvements costing $3,844.60. All these things were planned and provided for during this administration, but their realization was left for another.

One of the most noteworthy things about this administration was the way it dealt with the courses of study. At the June meeting in 1902 the board, on motion of Trustee Stroup, requested the faculty to "revise the courses in such a way as to include a large number of electives and an adjustment of the several departments to each other."

In the faculty minutes for December 16, 1902, occurs this statement: "There was a discussion of the report of the committee on curriculum." The records do not show the personnel of the committee nor the date of appointment, though it had been named early in the fall and had worked out its report after frequent meetings. The report was debated in faculty meetings at intervals until March 5. Only the briefest references are made to it in the faculty minutes, but these indicate that there were majority and minority reports, that there were two or three sub-committees and that they presented reports and substitute reports. So heated and prolonged did the discussions become that the standing rule for adjournment at 5 p. m. was rescinded until the matter was settled. Finally, on March 5, "The report of the curriculum committee as amended" was adopted unanimously. It was in this way that the elective system now in vogue at the university was brought about. The courses thus outlined, with minor changes, remain in force. A discussion of the report as adopted will be found in the chapter on "Courses of Study." In 1904 the courses were further enlarged by one leading to the degree of Bachelor of Music.

The matter of entrance requirements also was debated at great length and a decision was reached only a short time before commencement. The plan adopted was based on a system of credits, partly constant and partly elective, which is described elsewhere. With slight modifications this system has been in use ever since. In February, 1905, the faculty voted to join the Southern Association for uniform entrance examinations, but the connection does not seem to have been perfected.

At times during this administration the behavior of the students was not all that could be desired. The committees on discipline and on doubtful cases had a good deal of business on hand and faculty meetings were frequently devoted to trials. One noted case arose in 1903. A student decided that he would not drill. He was expressly ordered to do so by the faculty and then suspended for continued disobedience. He then brought suit in the circuit court of Washington County praying for a writ of mandamus to compel the president and faculty to reinstate him. The faculty were represented by Dr. C. H. Brough as counsel. The opinion was delivered by Judge John N. Tillman, and he sustained the faculty at every point. In the course of his opinion he said:

> In this matter the faculty acted with due caution. I believe that if, from the evidence, the relator had submitted to these extra drills, or if he had shown a conciliatory or even a tolerant spirit instead of a spirit of defiance, he would have been excused from the drudgery of the drill. In this situation I have no doubt that the president and members of the faculty felt that to allow the relator to successfully dispute their authority would result in a loss of the respect of the student body and seriously endanger necessary school discipline. In school government the step from complete control to anarchy is but a short one. * * * The faculty is made up of men and women of sense and experience. They are persons possessed of high character and know much more about conducting a state university than does the average lawyer. Mandamus can not be invoked to control discretion or judgment. Under the proof as I view it, I think it would be an inexcusable act in me to apply the scourge of condemnation to the backs of a score of hard working and conscientious men and women for doing that which their judgment told them was best for the school. * * * I want to discourage this character of litigation. A few suits like this will wreck the institution and wreck the students who bring them.

The fraternity question entered what was perhaps its most serious

phase the first year of this administration and continued to furnish matter for debate throughout its entire duration.

When first established at the University of Arkansas fraternities were treated with indifference, if not opposition, by most of the students. The mystery surrounding the secret meetings and initiations and the reserved bearing of the fraternity man in dealing with non-fraternity men as compared with the spirit of camaraderie displayed toward his fellow members bred a spirit of suspicion and distrust. In consequence the fraternities had a somewhat hard fight at first, but soon their hold was secure.

A little more than five years after the first chapter of a fraternity was established, a senior, on being asked what single thing had proved the greatest boon to the university since 1892, replied: "The general interest taken in fraternity work. * * * It seems since the Greek-letter orders entered the institution more animation has been manifested in school duties, literary work, and athletics, and I think the success of this magazine ["The Ozark"] is due indirectly to fraternity spirit." Another student expressed himself in like vein. "Since 1890," said he, "our students are much more active college men than they were before. The most prominent positions in schools are filled by fraternity men. * * * Then, too, the fraternities have exerted a healthful influence over our social life. As soon as a man can wear a fraternity pin on the lapel of his coat he begins to walk erect and carry himself with an air that suggests one of our newly appointed sergeants yearning for more worlds to conquer. And the proudest moment of a new initiate's life is when he can induce one of the girls to appear with his badge on. Our fraternity takes the place of home. If we can't have home the fraternity is the next best thing. Many a boy has been restrained from doing a mean deed by his fraternity associations."

Whether the increased activities referred to were merely coincident with, or the result of, the advent of fraternities the present writer can not say. A non-fraternity man who was at the university at the time declares that the advent of fraternities marked the beginning of the decline of the literary societies. The claim of the writer quoted that the most prominent positions were held by fraternity men seems to be borne out by the facts. "The Ozark" for June, 1897, gives a list

of those held by fraternity men and one is led to believe that there were not many more worth while. Unfortunately those selected by the students were not always beyond question the best fitted for the honors. Another cause of friction was the social question. A fraternity pin has a charm for a girl hardly exceeded by that of brass buttons and gilt collars. In consequence the non-fraternity men found themselves at a social discount, not to say, social pariahs. Smarting under these wrongs and insults the non-fraternity men proceeded to organize.

The faculty now began to take notice. Their first action (December 19, 1898) was to confer with the societies with a view to getting pledges not to initiate or pledge any student below the sophomore class. All the fraternities at once agreed to this, but the non-fraternity men at first refused. In May the faculty adopted certain regulations of which they asked and secured the approval of the board in June. They were to the effect that, beginning with the session of 1899-1900, every matriculate should pledge himself not to join any secret society except such as had the sanction of the faculty. No society was to receive such sanction until it had promised not to initiate, pledge, or solicit any student below the sophomore class. On the eve of commencement some of the fraternities began to "rush" new members, whereupon they were ordered to suspend all initiations pending the action of the board. The rules were approved as passed by the faculty, but the following year the board declared that one who had passed on his freshman studies could be pledged at commencement, though he was not to be initiated until the opening of the next term.

In 1901 the fight between the fraternities and the non-fraternity men was carried to the legislature. Whilst a rather drastic anti-fraternity bill was pending, the faculty declared that they could not assume any but a strictly judicial position in regard to the controversy and that they must decline to take any action or give any opinion on one side or the other. But at the same time they practically showed their approval of fraternities by granting the prayer of certain students for permission to form themselves into an organization for the purpose of applying for a charter from some national fraternity. The law as passed by the legislature prohibited the existence of

fraternities or Greek-letter societies at the university. No student who was a member of any of the prohibited societies was to be allowed to receive any class honors or distinctions conferred by the university or to compete for any prize or medal offered by the university or by any association or individual or to hold any rank, position or office in any organization of the cadets above the grade of second lieutenant after September 1, 1901. But any student who was a member could, by filing with the president a renunciation of such membership, relieve himself of the penalties of the law. No person who was a member of any of the forbidden societies composed in part of students, or who attended or participated in their proceedings, should be employed by the board as professor, instructor or teacher unless he filed a written renunciation with the secretary of the board.

At the opening of the fall term the faculty, endeavoring to enforce the law, prohibited all students from attending the meetings of any fraternity under penalty of suspension for a year. They also announced that students wishing to compete for honors must comply with the law and that, in the opinion of the board, a diploma was an "honor" within the meaning of the law. A form of renunciation was prescribed by which the student was to promise not to affiliate with, nor attend the meetings of, nor contribute to the support of, any fraternity.

Perplexed and dazed, the fraternities were disposed for a while to accept this as a death blow. While not in sympathy with the law, Dr. Buchanan believed that it was the duty of the faculty to attempt its enforcement. Throughout the year no fraternities were supposed to be in existence.

Such was the situation when Dr. Hartzog became president of the university. Shortly after the opening of the fall term of 1902 persistent rumors kept floating about to the effect that the fraternities were not dead, but were existing sub-rosa. Some one had found a way of explaining away the law and suggested that, after all, fraternities were not forbidden outright, that, while the first section of the law did prohibit, the second was permissive, imposing as a penalty for existence that no member should compete for any honor. The faculty,

however, declared that their prohibitory rules were still in force, though no active steps were taken to see that they were observed.

This was due to the fact that a majority of the faculty had always been disposed to side with the fraternities and now the president was of a similar disposition. The fraternities now grew bolder, but did not come out into the open for yet a while longer. But the anti-fraternity men did not relent. The feeling between the two parties grew stronger and the effect was felt in the societies and even in the class-room work. The fight was carried to the legislature of 1903, and a committee came up under instruction to make a thorough investigation. They had authority to send for persons and papers in securing evidence. They sent for many persons and used up a good deal of paper, but their report never was published. A drastic anti-fraternity bill was introduced in the legislature, but was defeated.

From this time on the anti-fraternity spirit began to wane and the fraternities soon came out into the open. No question was raised about the right of their members to secure diplomas and the custom of graduating with distinction was abolished, but fraternity men were not allowed to compete for prizes. Such was the situation at the close of this administration.

At the end of the three years the office of the president was declared vacant. Although of brief duration the administration had accomplished much and the university was now fully launched on its career of rapid development. To Dr. Hartzog is largely due the credit of increased attendance, of larger appropriations and of bringing the university prominently before the people of the State.

Gray Hall.

CHAPTER XIII.

THE ADMINISTRATION OF PRESIDENT TILLMAN.

June 13, 1905, Judge John N. Tillman was elected president of the university. Judge Tillman was born in Missouri in 1859, and was graduated from the University of Arkansas in 1880. He taught for a few years and then was admitted to the bar. He held a number of public offices and was serving as circuit judge at the time of his election. His interest in the university has been continuous since his graduation and a good part of this time he has had some connection with it, first as president of the alumni association and next as trustee. He is the first alumnus to be honored with the presidency.

For the second time in the history of the university special inaugural exercises were carried out in connection with the installation of President Tillman. The time for these exercises was fixed for September 20, 1905, and invitations were issued to all of the alumni, to representatives of educational institutions, to state officials and distinguished public men. On the appointed day a large crowd gathered in the university chapel. The following program had been arranged and was carried out with the exception of the address by Mr. J. C. South, who could not be present:

Invocation ..... Rev. J. E. Denham
For the Board of Trustees ..... J. C. South, LL. B.
For the Faculty ..... A. H. Purdue, B. A.
For the Alumni ..... J. C. Marshall, M. A.
For a Sister University ..... William S. Sutton, LL. D., University of Texas
Induction of the President ..... E. A. McCulloch
Associate Justice, Arkansas Supreme Court.
Inaugural Address ..... President John N. Tillman, B. L. L.

Professor Shannon gave a happy turn to his introductory remarks by calling attention to the auspicious meaning of the word inaugurate, which had its origin in the ceremony of inducting into office the

Roman augurs, who were men of prominence and influence. Touching the demands of the faculty Professor Purdue said:

We expect him (the president) to put his life into the University of Arkansas. We expect his time, his energies, and his best thought to be the property of this institution. We expect him to go deeply into the educational problems of our country and state; to embrace every reasonable opportunity to join in the councils of presidents of similar institutions; to bring this institution to the attention of the world; to place it on a broad and rational basis offering opportunities to its students as wide as the range of human knowledge, yet a unit in organization; to be full of aggressiveness, tempered with conservatism. In short, we expect him to take the reins of the institution and fearlessly guide it along the course blazed out by honesty of purpose, soundness of judgment, and a sense of fairness and equity to all.

In his address the new president bespoke his confidence in the future of the university and added a word of hope and cheer for every phase of its activity. The following are some of the more striking passages of the address:

These propitious omens gratify every friend of the university; every friend of the State. So long as the public school system, of which the university is the head, merits the approval and is granted the support of the people, decay of the commonwealth is impossible and progress certain. A state is just as strong as her schools—no stronger. Her position among her sisters is determined by her attitude toward her institutions of learning. If they flourish, she advances. If they decay for lack of support, the state will decay for lack of manhood and womanhood.

It was my pleasure in boyhood to see this hall rise, brick by brick, until it stood forth in finished grandeur, a thing of beauty and majesty. Here we hope she will stand forever, in the shadow of her oaks, proudly facing the morning.

The dearest privilege and highest honor that ever came to me, are mine at this hour; the privilege and the honor of presiding at an institution in whose chapel, corridors and class rooms, so many of the happy years of my youth were spent. Every man's heart is filled with tender sentiment towards the home and the school of his boyhood. No good man will raise his hand against either. Propriety, yes duty, thunders at every alumnus this command: "Taint not thy mind nor let thy soul contrive against thy mother aught," and the command is never disobeyed by the true alumnus.

All that I am, the little that I have accomplished, I owe to this institution, and duly mindful of this fact, I here and now pledge myself, my energies, my ambitions, my mind and my soul to her service.

The same day on which the new executive was chosen the board adopted a report submitted by Trustee Stroup as chairman of the

committee on rules, in which the duties of the president were defined. He was denominated the executive head of the university and was directed to secure efficiency in all departments, an orderly and economical administration, and healthful development in all the affairs of the university. He was required to preside at all meetings of the faculty, to vote on all questions, and to serve as the organ of communication between the faculty and the board, and also in all matters of appeals from students. He was authorized to fill vacancies, but such appointments were to be valid only until their sanction was secured or another appointment was made by the executive committee. A year later he was authorized to suspend any teacher for gross immorality or neglect of duty, the teacher so suspended being given the right of appeal to the board. In June, 1907, the president was given the right of veto on any action of the faculty which he deemed unfair or unjust to any department or not for the best interests of the university. The extent of the president's powers was made a little more definite in 1908 by the statement that he should have supervisory control over all departments of the university and the experiment station with power of removal. In case of the exercise of the power of removal he must inform the board at once. If the governor thinks the action unwarranted, he is required to call the board immediately.

The faculty was defined as composed of the president, the deans of the law and medical departments, the director of the experiment station, the commandant, the heads of departments or the ranking professors therein and the principal of the preparatory department. The faculty as thus constituted was authorized to add to its own membership out of the instructional force by election. The ranking professor in each department was designated the head thereof and was declared responsible for the quality and efficiency of the work therein. The commandant was required to teach military tactics, to appoint all cadet offices subject to the approval of the president, to execute all orders issued by the president, and to aid the president in the enforcement of discipline. No professor or instructor was to be absent from duty nor to be employed in any work not naturally within the scope of his duties without the consent of the board. All teachers were to be employed for one year and were to be in attendance at the university from September 1 to July 1. They were

expected to attend the National Educational Association and the Arkansas State Teachers' Association occasionally, and such others as the president should determine.

Few changes were made in the personnel of the faculty at the beginning of this administration. W. A. Ramsey became the principal of the preparatory department and A. A. Steel was added to the department of geology and mining as associate professor, and Antonio Marinoni became associate professor of Romance languages. Dr. Muckenfuss resigning in the summer, was succeeded in the department of chemistry by Dr. C. G. Carroll, who came from the Southwestern University. On the resignation of Professor Carr in 1906 Professor E. F. Shannon, who had been with the university for several years, was made head of the department of English. At the same time Professor Marinoni became head of the newly created department of Romance languages and Joachim Reinhardt came from the Eastern College of Virginia to take charge of the department of Germanic languages. The following year he was succeeded by Max Lentz, and Carroll F. Armstead became commandant in place of Ernest Given Howe, who had served in that capacity for 1906-07. At the same time Heinrich Schapper, who had been with the university since 1904, became head of the newly created department of physics. The following year he was succeeded by G. E. Ripley. Miss Yates having resigned from the conservatory of music and arts, H. D. Tovey became director in her stead. In 1909 Professor Shannon secured a two-years' leave of absence, the law forbidding such having been repealed the previous winter, during which time the department of English is to be in charge of O. D. Wannamaker. The same year Lieutenant Robert D. Carter took charge of the department of military science and tactics.

A number of changes have also been made in the College of Agriculture and the experiment station staff. Professor Cole having been made professor of agriculture in 1905, Robert W. Wade became agriculturist of the station and Charles F. Adams was added as entomologist and Joseph Lee Hewitt as assistant horticulturist. In 1906 Wilfred Lenton was added as veterinarian, Carl H. Tourgee as assistant dairy husbandman, and Rufus J. Nelson took charge of the branch stations as field agent. The following year C. P. Norgord

succeeded Professor Wade as agriculturist of the station and professor of agronomy in the College of Agriculture. In February, 1908, R. J. Nelson succeeded G. A. Cole as professor of agriculture and the following summer W. M. Bruce succeeded Professor Norton as chemist and Martin Nelson succeeded Professor Norgord. In June, 1909, Dr. R. R. Dinwiddie announced his desire to retire and A. K. Short, who had served two years as adjunct, was put in charge of the department of animal pathology. The department of vegetable pathology was created and J. L. Hewitt was put in charge. The following table will illustrate graphically the growth in the instructional force:

	1904-1905		1905-1906			1908-1909		
The Colleges	Arts	Tech.	Arts	Tech.	Agri.	Arts	Tech.	Agri.
Professors	12	3	12	3	2	14	3	8
Associates	3	0	3	0	0	5	2	0
Adjuncts	2	1	2	2	0	3	2	5
Instructors	0	3	3	3	7	3	2	0
Totals	17	7	20	8	9	25	9	13
Total for Colleges	24		37			47		
Conservatory	6		6			10		
Preparatory	10		10			11		
Station	6		8			13		
Totals at Fayetteville	46		51			90		
Counted Twice	2		8			12		
Net Totals	44		43			78		
Medicine	25		31			33		
Law	15		13			16		
Branch Normal	10		10			10		
Grand Totals	96		97			137		

The rapid growth in attendance is illustrated by the following table:

	1904-5	1905-6	1908-9
Collegiate.			
Arts and Science	170	220	370
Engineering	127	129	155
Agriculture	10	13	13
Special and short course	74	136	82
Total Collegiate	381	498	620
Conservatory	19	26	38
Preparatory	410	548	361
Unclassified			114
Total at Fayetteville	810	1071	1133
Medical	212	171	171
Law	42	46	65
Branch Normal	206	240	300
Grand Totals	1270	1528	1669

There has been a decline in students at Fayetteville in the preparatory grades and it has been continuous since 1905-06, though it was not really noteworthy until 1908-09. Two causes probably have contributed to this result. One is the improvement in the high schools of the State and the other is the continued agitation for the abolition of the preparatory department, which finally resulted in an announcement in 1908 that such would be done. The increase in collegiate students has been altogether gratifying.

The appropriations have grown some, but not at a pace sufficiently rapid to be altogether satisfactory. By act of March 16, 1906, known as the Adams act, the Federal appropriation for the experiment stations was increased $5,000 for the year ending June 30, 1906, and $2,000 annually thereafter until the increase reaches $15,000, making the total Federal funds for the station $30,000 a year. By the Nelson act of March 4, 1907, congress provided for an annual increase of $5,000 in the federal fund beginning with the year ending June 30, 1908, and extending over five years so as ultimately to make the

federal appropriation for the university amount to $50,000. The appropriations for the two biennial periods of this administration were as follows:

1907

	University.	Ex-Station.	Totals.
State	$194,590.00	$ 35,200	$229,790.00
U. S.	25,454.54	50,000	75,454.54
Totals	$220 044.54	$ 85,200	$314.790.00

1909

State	$219,915.00	$ 55,900	$275,815.00
U. S.	36,727.27	54,000	90,727.27
Totals	$256,642.27	$109,900	$366,542.27
Less items vetoed	31,000.00	19,000	50,000.00
Net totals	$225,642.27	$ 90,900	$316 542.27

In addition to the above sums the university enjoys a considerable revenue from the matriculation fee, which is $10.00 for each student. Up to 1907 the income from the endowment was $3,930 per annum. In the adjustment with Fayetteville that year, $9,000 was left uninvested, consequently the annual income was reduced to $3,480.

The total federal appropriation for the university for each of the two years was $35,000 and $45,000, of which three-elevenths goes to the branch normal at Pine Bluff. The vetoes are to be explained in this way. After looking over the financial situation, the governor became convinced that the legislature was appropriating more money than the state's revenue would supply. Having reached this decision before signing the experiment station bill, he called the board of trustees together and consulted with them in regard to what items could be sacrified with the least injury. The result was that they agreed to cutting out $19,000. The university bill had already been signed, but this was gone over and $31,000 was set aside which the trustees ageed not to use and to return to the state treasury. Besides the above sums there was in 1907 a legislative appropriation of

$55,630.31 to cover deficiencies. The two largest items were $26,300 for salaries and $21,688.81 to pay the balance due on contract for work on and materials used in constructing the six buildings provided for in the act of 1905.

The salary deficiency had been running for several years and originated in the following way. The Barker act of 1887 had fixed the salaries of the president and faculty, but the act of 1891 had repealed this and directed that the salaries be fixed by the board of trustees. After inserting this section from the act of 1891 the compilers of Sandel and Hill's Digest followed it by the contradictory act of 1887, which had fixed the salaries by law. When the appropriation bill of 1903 was drawn up it contained an item of $65,000 for salaries, all of which was needed to cover the salaries then paid. When the bill was under discussion in committee of the whole Mr. Barker, who was a member of the legislature of 1903, read his section from the act of 1887 and said, "That is the law." He then read a list of the salaries paid at the university and declared that the board was violating the law. With that as a preface he moved that nearly half the item be stricken from the bill. The friends of the university in the house were disconcerted and really did not know what line of defense to follow. The result was a salary item of only $40,000. But the trustees did not reduce salaries. Instead they simply drew upon the fund until it was exhausted and then waited until the new appropriation was available. The result was that by 1907 a salary deficiency of $26,300 had accumulated. President Tillman then decided that the time had come to square accounts and secured the passage of a deficiency bill, though not without considerable opposition. This opposition to the salary item was due to the same misapprehension of the law as had prevailed in 1903, but President Tillman, who had written the law of 1891, was present and fully prepared to explain the situation. Opposition to the item for the contractors was based on the supposition that it was for extra work. In reality it was due to the fact that the board had accepted from the architects plans for buildings which could not have been built within the appropriation.

The College of Arts and Sciences has expanded during this administration by the creation of three new departments by separating

the work naturally belonging to them from others to which it had been attached by an unnatural alliance, and by additions to several of the departments already existing. In 1906, after a long series of recommendations to that effect, the department of English was relieved of the burden of modern languages and two new departments were created, that of Romance languages and that of Germanic languages. A year later physics, after years of subordination to different departments, was finally separated from its last master, electrical engineering, and given independence. Several of the departments, notably English, mathematics, history and political science, economics and sociology, were strengthened by the addition of associates and instructors of scholarship and experience.

One of the more noteworthy acts of the first year of this administration was the organization of the College of Agriculture. The legislature of 1905 had directed that courses of study in agriculture should be instituted in connection with the experiment station, but the board adjourned without making any provision of the kind. It was then left to the new president, acting in conjunction with the director of the experiment station, to carry out the wishes of the legislature and this they did in the College of Agriculture, the instructional force of which was supplied for the most part by the station. The following year, when the organization had been thoroughly perfected, the departments of horticulture and agriculture were separated entirely from the College of Liberal Arts and Sciences, with which they had been associated up to this time.

The experiment station staff has been more than doubled. In 1904-05 there were six men on the staff; in 1905-06 there were eight; in 1909 there were thirteen.

Another advance hardly second in importance to this was taken in 1909 in the appointment of a professor of secondary education. The president had been working to this end for some time and was glad to announce that it had been made possible by the General Education Board after a visit to the university by its secretary, Dr. Wallace Buttrick. For the present at least it is not intended that the holder of this position shall reside at the university and give instruction. His chief service will be to visit the high schools of the State with a view to conferring with the principals and helping them

to raise their standards and equipments and to assist in the establishment of such schools where not found at present. He will work in harmony with the committee on accredited schools and it is expected that this will bring about a closer relationship between the university and the public-school system of the State.

Directly in line with this work comes the abolition of the preparatory department. Early in the year 1908-09 the faculty voted to abolish the A class after June, 1909, and announced that the sub-freshman class would follow it as soon as the condition of the secondary schools in the State would warrant such action. At that time it was not known that a professor of secondary education would be secured. The legislature of 1909 then took up the matter, and on the recommendation of the president, fixed the time for its discontinuance at June, 1911.

In 1908 the department of physical culture and athletics was created and the director was made a member of the faculty. This was done in pursuance of a policy designed to put athletics on a higher plane and to eventuate in a department of physical culture with a commodious gymnasium.

No revolutions in the courses of study have characterized this administration, though several changes of importance have been made. The B. S. degree was dropped in 1908 and mathematics ceased to be a required subject. At the same time the requirements for graduation in the arts and science courses were raised to sixty-four periods. A highly specialized course leading to the B. S. in Physics was also introduced this year, and in the technical school a course leading to the B. S. in Cement Engineering. Although the legislature had made no appropriation for such work, the president and faculty decided to inaugurate a summer session in 1910. It is intended primarily for teachers in the common and high schools. If successful and supported by the legislature, it will become a permanent feature and regular college work will be offered.

An important step was taken in the spring of 1909 when the faculty voted to raise the entrance requirements one unit each year until they reach fourteen. The faculty were not unanimous in making this

decision. Those opposed stated that they did not believe the condition of the secondary schools would justify it. But when the decision was reached all cheerfully acquiesced.

In his very first report the new executive boldly took up the subject of tenure, declaring that there was a "hurtful unrest among the professors and instructors because of a general feeling among them that their tenure is insecure. In consequence of this they are constantly looking out for employment elsewhere and often secure it, thereby forcing us to be constantly taking up new and untried men. I am convinced that a longer and more certain tenure should be secured for officers and employes. A strong man or woman will build up a following among students, and the longer this teacher remains, the larger this following will be. The students, when they go out into the State, will take more interest in the university if their favorites continue as members of the faculty than they will if strangers take their places."

This produced no immediate effect, but in 1907 the board rescinded the rule that teachers should not be elected until after commencement and proceeded to elect the president for a term of five years and the director of the experiment station and the heads of departments for four.

On the question of salaries there has been some advance, though the situation is not yet satisfactory. The president's salary was raised to $4,000 in 1907 and that of the director of the experiment station to $3,000, though the latter has since been reduced to $2,500. Most of the heads of the departments have been raised to $2,000 and the associates and other instructors range from $1,800 down. In 1909 a serious effort was made in the board to go beyond $2,000 and it probably would have succeeded, had it not been feared that the funds would not warrant such increase after the board had agreed with the governor not to call on the state treasurer for $31,000 of the sum appropriated by the legislature.

In the matter of buildings this administration has done but little more than carry out the work provided for by the legislature of 1905. Not content with this a strong appeal was made to the legislature of 1907 for buildings for geology and the museum, for physics,

Y. M. C. A. and Y. W. C. A. and gymnasium, library, auditorium, textile school, shops, observatory, dormitory, and power and light plant, the total to cost $420,000. Either because staggered by this sum or because of a feeling that the work of 1905 was enough for a season the legislators refused everything. The desperate condition of the department of physics caused the board to appropriate $1,000 for a temporary building, but this was destroyed by fire in the fall of 1909. In 1909 only three buildings were asked for, a library and auditorium, a building for geology, mining, physics, and the museum, and one for the Christian associations, the armory and gymnasium, but again the legislature gave nothing for buildings.

Two explanations may be offered for this. The state treasury was already threatened with a deficit and the legislature was growing a little inclined to economy. But more important than this was the agitation for the removal of the university to Little Rock. A bill having this end in view was pending in the senate and finally passed, but, after having created a good deal of uneasiness among the friends of the university at its present location, it failed in the house.

One of the first acts of the administration was to change the policy of ignoring the fraternities. At the very opening of the fall term in 1905 the prohibitory rules were repealed and new rules and regulations were adopted. These provided that no one should be initiated into any secret society until officially informed by the recorder of grades that all work required for admission had been completed and also fifteen hours of freshman work for one term. Any secret organization violating this rule should forfeit its right to exist. It was also provided that keeping liquor stored in any chapter house or allowing drinking therein should work forfeiture. A bill was formulated repealing the anti-fraternity law and the faculty requested the legislature to pass it, but the law is still on the statute books.

One case of discipline has occurred under rules last adopted. In February, 1907, a sorority was found guilty of violating the rule about initiations and was ordered to disband. At the June meeting the board requested the faculty to allow the society to reorganize, stating that they approved of the action of the faculty, but that they believed the guilty ones had been sufficiently punished. The faculty

acquiesced in this request and the sorority was allowed to resume operations. Since then there have been no more troubles of this kind.

The law as it now stands and as it is interpreted undoubtedly is a most unfortunate compromise. The present policy of the university is to treat the fraternities, not as pariahs, but as useful adjuncts in realizing the best results from college life. When they come together in chapter houses, as some are doing, they need intelligent and sympathetic supervision. There may have been some unwise participation on the part of some members of the faculty in the fraternities and the law did well to prohibit this, if it could not have been prevented otherwise, but, as the law stands, it practically makes impossible efficient supervision by the faculty. Rules may be laid down and penalties may be inflicted for their violation, but that is not enough, if the chapter houses are to make any approach toward standing as a temporary substitute for the home.

Another most unfortunate result is the position of the fraternity man with respect to honors and distinctions. It tends to deaden his ambition and sometimes throws a prize into less capable hands. Occasionally prizes have not even been awarded because there were no contestants. Though the literary societies are doing moderately well, they probably suffer, for, however earnest and loyal the fraternity man may be in his literary work, he can never realize a laudable ambition to represent his society in public. The college magazine died with the advent of the anti-fraternity law. Whether there was any connection between the two the writer can not say.

In spite of the disadvantages under which they labor most of the fraternity men have not lost interest in scholarship and good conduct. In a few instances they have aided in the maintenance of discipline by taking their own members in hand and dealing with them before it became absolutely necessary for the university authorities to do so. Some of them take a special interest in their freshmen and endeavor to start them on the road to scholarship and good character. For a time there was a tendency to give too much time to dances and other social functions, but this has been checked by friendly admonitions from the president and a few restrictive rules.

Happily the bitterness of strife between the fraternity and the non-fraternity men has passed away. At this writing a movement is on foot among the non-fraternity men to ask the legislature to repeal the anti-fraternity law.

The advent of President Tillman marked a change in the method of discipline which has brought commendable results. Down to this time practically all cases of misconduct on the part of students were brought before the faculty. In his inaugural President Tillman intimated that the discipline in the future would be vigorously enforced under his personal direction and the intimation has been carried out. Practically the whole matter is now controlled by the president and the commandant. The faculty is rarely called to consider such cases and their meetings have become far less frequent. In consequence it is possible for them now to devote their time in faculty meetings to the discussions of the larger problems of university organization and government.

Carnall Hall.

CHAPTER XIV.

THE COLLEGE OF ARTS AND SCIENCES.

I. Entrance Requirements.

October 2, 1871, the committee appointed to visit the universities of Michigan and Illinois made their report. From this it appears that the committee was more favorably impressed with the course of study in Michigan, where there were no optional studies and each student was required to labor a certain amount of time.

This was the beginning of a conflict of ideals which required time for settlement. The question of optional studies, except as made possible by a variety of prescribed courses, was settled in the negative until within recent years. The question of the relative importance of agricultural and mechanical courses on the one hand and of the arts courses on the other was one of constant recurrence. At times one was designedly put forward, at other times attempts were made to give the other first place. Bearing this in mind the reader can better appreciate the changes in courses of study and the degrees offered. In the earlier days the general policy of the institution in this matter was governed by the board, sometimes at the dictation of the legislature, sometimes at the suggestion of the faculty. For many years the faculty has taken the lead in matters of educational policy, with only occasional interference by the board. In 1873 the executive committee was authorized to "make the necessary changes or modifications in the course of study and adopt suitable text books," but the details were generally worked out by the faculty.

During the first year ending June 28, 1872, there were no collegiate students. The conditions prescribed for admission to freshmen in the fall of 1872 were "a satisfactory examination in reading, spelling, penmanship, algebra to equations of the second degree, English grammar, geography, arithmetic, Harkness' Introductory Latin Book, and Harkness' Latin Reader, or their equivalents." Candidates must also be of good moral character and not under fourteen years of age.

This statement remained unchanged until the announcements were made for 1877-8. It was then identical with the above except for the omission of Latin. As Cæsar was prescribed in the freshman year of the classical course, the presumption is that the candidate for this course must still present elementary Latin, while candidates for other courses, agriculture, commerce, normal and engineering, were admitted on other subjects. It was announced that, beginning with September 1, 1879, freshmen would not be required to present or study Greek, but this decision seems to have been reconsidered, for the next year two books of Xenophon were required of classical students, as well as two books of Cæsar.

Beginning with the fall of 1880 something additional was required in some of the courses other than classical, where the ancient languages were omitted, but this was not always true. Students in the course in Latin letters presented the same as the classical students except that they omitted Greek. In the modern language, scientific, civil, and mining engineering courses United States history was required and "French and German as required in the A and sub-freshman classes," though it is difficult to determine just what that was. Candidates for the course of English letters had to present United States history only, while the agricultural student had to prove himself able to enter the scientific course, except that French was not obligatory. Only "the common English branches" were required of candidates for the normal. At first candidates for this course were required to pledge themselves to teach two years, but this was declared repealed in 1878. In 1877 it was announced that no student under sixteen would be admitted to the normal department, but two years later, on motion of Trustee Gregg, the age limit was reduced to fourteen.

Between this time and 1885 the published requirements showed no advance of consequence, but we must believe that there was a toning up in the application of the tests for admission. For some reason there was a decrease in the number of collegiate students. The legislative committee of 1885 thought that the main reason for this was the fact that the grade had been considerably advanced. They were of the opinion that "the requirements for entrance into the college classes might be reduced so as to admit in the freshman class

the sub-freshman, which would merely double the number of students in college classes." Pursuant to this recommendation the legislature resolved that the board be "requested to lower the course of study in the collegiate department to its former standard."

Colonel Edgar, the president, now submitted a series of questions to the faculty, one of which was whether entrance requirements should be lowered so as to include the sub-freshman class in freshman. Most of the faculty advised against it, though Professor Conrad, whose stiff courses had been the chief cause of complaint, recommended the change, saying that the State was not prepared to sustain the standard they had set. A sort of compromise was effected by making no statement whatever concerning requirements for the next two years, but at the end of that time the requirements were raised by the addition of three books of plane geometry, and also Latin was required, if the course selected embraced that study. No attempt whatever was made to equalize the requirements for admission to the different courses.

In 1891, for the first time a somewhat detailed statement of the requirements was published in the catalogue, followed by specimen examinations. Psychology is the only subject not previously mentioned, and United States history is now included for all courses, while a few subjects have been dropped. There are eight subjects in all, English (Meiklejohn's Grammar and a composition), arithmetic, algebra, plane geometry, history, geography, Latin, and physiology. The statement is made that three books of Cæsar will be required in 1893 and 1894. These requirements are referred to as prerequisite for all the regular courses. Whether Latin was actually required of scientific and engineering students the writer can not say. The following year it was not required except in the arts and normal courses. Candidates for the other schools were not required to present any equivalent. The announcement made in 1892 that five books of plane geometry would be required in 1893 was not made good until 1899, though algebra was increased to simultaneous quadratic equations in 1896.

Except for the substitution of Raub's Rhetoric for Meiklejohn's Grammar as a basis for the examination in English and the inclusion of general history (1893) no other change was made until 1896, when

it was announced that, beginning with 1898, the requirements in English would be those of the American Association of Colleges. This system was then followed without further change until 1902-03, when an entirely different scheme of admission was adopted, to become effective in September, 1903.

The new plan was based on a system of credits, partly constant and partly elective. A credit was defined as consisting of one recitation of sixty minutes, or two of thirty minutes, in a study for a school year of thirty-six weeks. Candidates for the B. A., B. S., and normal courses were required to present thirty-one credits; for the engineering courses, twenty-four credits. The following credits were required of candidates for the B. A., B. S., and normal courses: English, 8; algebra, 5; plane geometry, 4; United States history, 3; general or Greek and Roman history, 3; making a total of 23. In addition he must present eight credits from one of two groups of studies. The first consisted entirely of foreign languages, ancient and modern; the second of scientific studies, English, history, civil government, and bookkeeping. The candidate for the B. A. degree was restricted to the language group and the eight credits must all be in one language. The constants required of engineering students were the same as of B. A.'s except for the last named, giving a total of 20. Four credits in addition were required, selected from either the language or science group.

The subjects which one might present were necessarily more numerous than before. In addition to those previously named the candidate could now offer Greek, German, French, chemistry, physics, physical geography, botany, zoölogy, civil government, bookkeeping, freehand drawing, and shop work.

This system, somewhat modified, is still in force. In 1908 the "unit" language was adopted. Candidates for the B. A., B. Mus., and normal courses were required to present 3 units in English, 2 in algebra, 1 in plane geometry, ½ in United States history, and 1 in general or Greek and Roman history, and in addition 3 from the language group, at least two of which must be in one language, except that normals might select three units from either the language or science group. The corresponding change was made for the agri-

cultural, scientific, and engineering courses. In the spring of 1909 the faculty decided to raise the entrance requirements one unit each year, beginning in September, 1909, until they reached fourteen.

Accredited Schools.

It is presumed that the "satisfactory examination" in the subjects required for admission during the first two decades of the university was made by written or oral tests. In 1891 the university, following the fashion of the day, began to publish specimen examinations for entrance to the freshman class. With the growth of the accredited school system the custom of examinations has almost reached the vanishing point.

December, 1888, in his report to the board, President Murfee asked that the faculty be authorized to draw plans by which schools of a required standard might have the privilege of entering their graduates at the university on certificate. This system, he thought, would stimulate public and private schools to regulate their standards according to the curriculum of the university and would prove a good tonic for the whole educational system.

A faculty committee on accredited schools was appointed and its first report was handed in August 24, 1889. It proposed that any school desiring to be accredited should make application to the faculty, giving a full statement of the course of study. It should then be accredited on one or more subjects at the discretion of the faculty. Students coming from such schools should be admitted to college classes in those subjects in which they bore certificates. Provision was also made for accrediting to sub-freshman only. These privileges might be withdrawn at any time for cause. No mention is made of this subject in the catalogue previous to that of 1891. It was then stated that, on the application of any principal to be accredited, an officer of the university would be sent to examine his courses of study and methods of teaching. Once accredited, that relation would continue until there was a change of principals or the school was notified that it was deficient. The university further promised to do all in its power to promote cordial relations in the various branches of the common school system. No list of accredited schools was

published until 1892, when the Fort Smith public high school headed and closed the list. The following year the Rogers Academy was added.

In July, 1893, a standing committee of three, one from each college, was appointed to take charge of this matter and work up the system. They were instructed to print circulars giving information on the steps necessary for any school to take to become accredited; to send out invitations to principals to apply for the accredited relation; to prepare and print certificates to be used, and to coöperate with the committee of the State Teachers' Association in the preparation of a course of study for the high schools of the State.

The following year thirty-three schools applied for the accredited relation and by the close of the year the list of those accorded this privilege had risen to ten. That this privilege was not to be had merely for the asking is evidenced by the fact that only twenty-three were enjoying it at the close of the year 1895-96. One of these was the University Academy at Columbia, Missouri. In the next four years the list was increased by only five, and in the following three years was reduced by one. More care was now being exercised in the examination. The committee required information covering the subjects taught, the extent of instruction in each, the text-books used, the length of the recitation periods, the length of the session, the methods of teaching, the names, qualifications, and experience of those teachers doing high school work and the library and laboratory facilities. In 1904 it was announced that, to prepare for freshman, the high school work must cover three years of thirty-six weeks each and be based on an elementary course of seven or eight years. There was a manifest distrust of pretentious schools. Some difficulty was experienced in getting students to bring certificates properly filled out. Since 1905 this requirement has been rigidly enforced. At times the work of the committee has been hampered by lack of funds to pay expenses of visitation. The board appropriated two hundred dollars for this in 1895 and four hundred in 1896. Since then when visits of inspection could not be made in connection with some other trip the expenses have been met out of the contingent fund.

In 1899-1900, when the standing committees were first published, the committee on accredited schools consisted of Professors Jordan

and Droke and Miss Davies; the following year of Professors Jordan, Menke and Droke, no attention being paid now to the three different colleges. Since 1902 Professors Reynolds and Dunn have been on the committee and at a later period Professors Shannon and Carroll were associated with them.

The prediction of President Murfee, under whom the system was inaugurated in Arkansas, that it would tone up the whole educational system has been fulfilled. The policy of the committee has always been to suggest and help, not to dictate, except in the matter that certain standards must be met before the accredited relation can be granted. The elective system has left the high schools free to develop their own courses of study, it not being necessary for all to adopt any hard and fast curriculum to conform to university requirements. The suggestions of the committee have been received in liberal spirit by most high school principals who have looked upon the accredited relation as an honor to be desired. By 1906 the number of schools on the list had grown to forty-six, and the standards were much higher than when the system was begun; in 1910 the number was 85.

When the professor of secondary education was added to the university force the committee on accredited schools decided upon some changes in the system of accrediting. Beginning with 1910 accredited schools are divided into three classes denominated A, B, and C. The class into which any school falls is determined mainly by the number of units it offers, by its teaching force, equipment, number of pupils, and its financial support. In order to fall into class A, a school must prepare its students in fourteen units and should have at least three teachers devoting all their time to high school work; class B, a minimum of eleven units and one and one-half teachers; class C, eight units and at least one teacher. All such schools must be based on a common school course of at least seven grades. Schools seeking credit for sciences should provide laboratories for experimental work and should require the students to prepare note books. Schools in classes C and B are not encouraged to offer any courses in science and schools in class A are advised to build up one laboratory at a time, beginning on one for another science only after the first has been made adequate for the work attempted.

Schools desiring the accredited relation will be asked to supply detailed information with respect to courses of study, teaching force, equipment, length of term and recitation periods. If the statements are satisfactory the school may then be requested to submit specimen examination papers, outline maps, compositions and science notebooks, all graded by the teachers. If deemed necessary, a personal inspection will then be made by the professor of secondary education or some other representative of the university.

Preparatory Department.

The University of Arkansas began as a preparatory school, or, more correctly, as a crudely graded school. The authorities declared that the educational facilities of the State, with the exception of a few favored localities, were such that students desirous of a collegiate or normal education were unable to prepare themselves to enter the university or the normal department. In consequence of this they proceeded to establish a preparatory school, "making it auxiliary to the higher departments and designing it especially to prepare pupils who might enter it for these departments." Another design was to supply material for a model or training school for the normal and the president was authorized to organize such a school.

The course of study prescribed for the preparatory students began with charts and the first reader and extended over five years. Within that time the student was expected to master the five readers and a certain amount of arithmetic, geography, grammar, physiology, botany, geology, history of the United States, drawing, penmanship and music. At first he was not supposed to begin Latin until the second term of the fifth year, and algebra the third term, but Latin was soon pushed down a year.

The institution was thrown open to students January 22, 1872. By the end of the session ninety-one students had enrolled in the preparatory department and ten in the normal, though all were of preparatory grade. More than half were of Fayetteville.

The five-year course was retained until 1878, when it was reduced to three. The first year began with Asgood's American Fourth Reader and the sixth reader was used throughout the third or

sub-freshman year. Latin and Greek were not begun until the last year, Harkness' texts being used. Within a year this amount of time was found inadequate to meet the demands and the classes were increased to four. The lowest was called the "C" class. Beginning with the "A" class an attempt was made to classify the students on the basis of their future collegiate careers and to provide corresponding courses of study for classical, scientific, engineering, and English students. These distinctions were dropped at the end of one year. At this time the age of students ranged from 9 to 31.

In 1886 the preparatory department was replaced by the high school department and the grammar school. The former embraced the following courses: (1) language course; (2) short normal course; (3) business course. All below was the grammar school. One reason for this change was in the words of President Edgar, "the greater dignity that would attach to the A and sub-freshman classes by having them regarded as the high school department." Another was that it would make possible the subjection of students below the A grade to a discipline more adapted to their years and advancement. In another year the preparatory department reappears with A and sub-freshman classes. The B class was retained for all not qualified to enter A, but they were now regarded as so far beyond the pale that the board of trustees "limited the labor required in their case."

In the general reorganization of 1891 it was felt that the preparatory department could not be left untouched, so it evolves into the "University High School" with these aims: (1) To prepare for the university; (2) to furnish an opportunity for a good general education to students unable to pursue a longer course; (3) to furnish young men and young women an opportunity to secure a good business education. To secure these ends it was stated that three courses were offered, but only two were outlined. One was a "general course, based on mathematics, English, history, science, and Latin, the other was called the "engineering and agricultural course," and included a little bookkeeping as well as some subjects peculiar to those courses. These were two-year courses but B and irregular students were still received.

The University High School lasted one year, when the old preparatory department regained its own, a position it held until 1897, when it was replaced by the present "Preparatory School." Like its usurping predecessor it had three aims. The first two were an inheritance, but the third was to "prepare teachers for the public grammar schools of the State." In fulfillment of these aims four two-year courses were offered, an agricultural course, an engineering and manual training course, a scientific course, and a classical course, and seventeen instructors were provided (a year later) to furnish applicants the necessary store of knowledge. However, all but six of these were primarily engaged in other departments and only incidentally instructing a class or two in the preparatory department. The B class disappears after 1893, but "irregulars" are still found for a while.

Beginning with 1897 only two courses were offered, an engineering and mechanic arts course and a general course. Two years later a new system was adopted which in effect doubled the number of courses, though the differences between some of them were slight. The subjects taught in the preparatory department were simply listed and the amount and character of work required for admission to the college in the arts, engineering, scientific, and teachers' courses were indicated. Students once enrolled (presumably in the A class) must complete 34 hours before dropping preparatory studies.

The foregoing was in effect a sort of elective system. A more satisfactory system was introduced into the preparatory department by the revolution of 1903 in the college. There was now a certain amount of

Required Work.	1st year.	2d year.
Arithmetic	2	0
Algebra	3	2
English	4	4
Geometry	0	4
History, U. S.	3	3
History, Greece and Rome	0	3
Totals	12	13

In addition the student must elect four hours each year from

	1st year.	2d year.
Latin	4	4
German	4	4
Physical Geography	3	0
Nature Study	1	0
Bookkeeping	1	0
Woodwork	2	0
Forge Work	1	0
Physiology	0	2
Physics	0	2
Civics	0	2
Drawing	0	2

Students to take the B. A. course were required to elect either Latin or German. Those desiring to take the engineering course could omit Greek and Roman history and elect any four hours of elective work. There was also a teacher's course which required no Latin or German or physics.

In 1908 the amount of preparatory work was reduced from 33 to 32 hours. At the same time the entrance requirements were raised the equivalent of five hours. The following year the A class was abolished altogether, leaving only one year of sub-college work in the preparatory school. As the entrance requirements to the college are being raised also to keep pace with them.

As late as 1897 the enrollment of the preparatory school was 60 per cent of the total at Fayetteville. Since then the decrease has continued until 1909, when it had fallen to 35 per cent. The faculty and board have voted to abolish the department altogether after the year 1910-11.

When the preparatory department was first organized it was put under the direct supervision of the president of the university who was instructed to draw up the course of study and supervise the work. Beginning with 1877 it has been in charge of a principal who devoted all his time to the department except for a few years when it was combined with the normal department. The following have served as principals:

O. F. Russell, 1877; H. M. Welch, 1880; J. F. Howell, 1885; Mrs.

A. M. Tyler, 1892; B. J. Dunn, 1894; W. A. Crawford, 1897; J. W. Kuykendall, 1901; W. A. Ramsey, 1905.

II. COURSES OF STUDY.

The College.

In the first catalogue (1872) only one course was outlined, besides the normal course, and this was styled simply "General Course." Apparently this course was intended to lead to the B. A., though no mention was ever made of any such degree until 1877. The studies were listed in two columns, one marked "regular," the other "optional." Under the latter appeared Greek, French, German, chemistry, civil engineering, evidences of Christianity and social science, but it is not clear whether the student must choose some study among these each year or whether he could omit them altogether. The "regular" studies included mathematics (from algebra to analytics), Latin (Cæsar in freshman), several of the various sciences, and a little English, history, philosophy, political economy, and constitutional law.

The following year this course was styled "classical" and there were no optional studies. It was a four-year course and each year was divided into three terms. The number of hours devoted to each subject was not indicated. Expressed in the language of "terms" of which there were three in the school year, the following were the requirements: mathematics, 11; English, 7; modern languages, 9; Latin, 12; Greek, 12; science, 14; history and political science, 8; philosophy, 7; bookkeeping, 1. For 1874 Greek, French, and German were made optional—presumably the student must choose among them—and bookkeeping was dropped from junior, but added for a year to freshman 1876-77. Five years later Greek was again required and so remained until 1883, when it was made optional with modern languages or science. During this time history disappeared except for one term of the history of civilization, and one of general history, while English made some gains. The course was now distinctly a Latin, Greek, English, and mathematics course through the junior year. Except for two terms of "natural philosophy," the senior year

was devoted to philosophy and political science. The amount now required for graduation appears to have been eighty-one periods of forty minutes. Slight changes were made from year to year, but none of marked consequence for some time.

In starting out with this course to the exclusion of all others the board declared that their effort had been not so much to mature a permanent plan of instruction in the university as to provide courses according to present needs. Another reason was the lack of funds, the so-called "agricultural scrip" not being available. In 1873 the executive committee of the board recommended the organization of four colleges or schools, agriculture, engineering, natural science, and general science and literature. The recommendation was followed, except as to the third, and the last was still called the classical school. In 1877 the friends of technical education secured an order from the board requiring all beneficiaries to take a course in agriculture and mechanics, "with permission to select such other studies as circumstances will allow."

The immediate effect of this order does not seem to have been very injurious to the arts department, as it furnished all the graduates for the next two years. But perhaps it was not without its influence in broadening the department. The following year a B. S. degree was mentioned and in 1879 a separate scientific course was provided leading to this degree. This course was substantially equal to the B. A. in the amount of work required, both for admission and graduation, Latin and Greek being replaced in the admission requirements by French and German and in the college by science.

The B. S. degree enjoyed an unbroken career until 1908, when it was abolished. While the degree remained, the courses on which it was based varied, as the sequel will show. The degree of B. L. was first conferred upon three graduates in the class of 1876, but is first mentioned in the catalogue of 1878-79, where the statement was made that it would be conferred on students who completed the normal course. This took the place of the B. A. for normals, which had been promised to them the year before. In another year it was taken from the normals and promised to students completing the newly invented modern language course, which was practically identical with the

classical course except in the substitution of French and German for Latin and Greek. Latin students in this course were allowed to choose between Latin and French, but in 1887 the degree was confined to those who took the "Young Ladies' Course." This course is described as "a necessity, since the Barker bill still admits ladies as beneficiaries, yet does not require any work of them. At the same time they could not take the specific text-book work required in the first seven courses." Young ladies not paying tuition took science and received the B. S. Those preferring to take French and German or Latin could do so upon the payment of tuition and they received the B. L. The following year the "Young Ladies' Course" disappeared and along with it went the B. L. degree.

The early eighties were very productive of degrees, three new ones being invented for the arts and two for the engineering students. In 1881 the B. Lat. Let. and B. English appeared and the next year were joined by the B. Ph. The first two, which are sufficiently described in their titles, survived until 1885, when they disappeared forever. It is hard to discover on what the B. Ph. was based other than the resolution of the board, "That on the recommendation of five professors, with whom he has completed the specified work, or its equivalent in the same course, a student shall be entitled to the degree of Bachelor of Philosophy, and to the signature of the president and secretary of the faculty." Perhaps this diploma was not considered equal to the others, which the board declared "proper for all the faculty to sign." Nothing more was heard of it until 1899 when it was given as one of the three arts courses and was based on a course requiring Latin. It was made equal to the B. A. and B. S. in the number of hours required for admission and for graduation. In 1903 it was again dropped.

This fluorescence of degrees was explained by Professor Conrad as largely due to his system of instruction and his rigid grading. The first year of his incumbency in the chair of physics a senior failed, apparently an unusual thing. The president asked the professor several times what he proposed to do about it, adding, "He is a Republican and I will get all the blame for it." "For the benefit of the weaker brothers," says Professor Conrad, "and to save the self-respect of some of us, the tradition of a second degree—a B. L.—was

revived. And all the seniors who were not fit for the A. B. were given the B. L." To anticipate such cases in the future he got the faculty to recommend the addition of several other degrees from which the more difficult scientific work was excluded. At the same time he lowered his passing mark to 70 for the B. A.—in other departments it was 75—and to 50 in others, this representing less work in amount, not inferior in quality.

In 1881 a number of students presented a petition to the board against the high standards now required for graduation, aiming especially at Professor Conrad. As a counter move the alumni association, of whom Judge John N. Tillman was then president, on motion of Professor G. W. Droke, who was then teaching in the preparatory department, passed strong resolutions unqualifiedly endorsing the efforts of the faculty to maintain a high standard. The resolutions were printed by the board and this action was understood as an endorsement of the effort to raise the standard, but the following year two young men, whom the faculty refused to recommend for degrees, were, upon the recommendation of the president, allowed to graduate. The board also, at the instance of the visiting committee, called upon Professor Conrad to abandon instruction by lectures and to decrease the amount of work required, with which resolution he complied.

While sustaining the president in his recommendation of the two young men for degrees, the board do not seem to have approved his action. They resolved that hereafter any applicant for a degree failing to secure the endorsement of all the professors instructing him should be entitled only to a certificate from the endorsing professors. A full list of all candidates for degrees should be presented to the board together with the official approval of the faculty, and the diplomas were to be signed by the faculty.

Having brought down the standard of requirements in college an assault was next made on the admission requirements, the details of which have already been given. However, the faculty seem to have made an honest effort to maintain the standard of the B. A. course, concerning which this statement was made:

The classical course is intended to meet the wants of those who, while strong and steady enough to do the practical work required, have the energy and will-power

to do the mental work of a B. A. course, and obtain that degree as a basis for professional life, or for mental training; of those who have state pride enough not to want to go outside of the State to obtain that training which the State ought to, can, and does afford its sons. The very best material of the State, thus dissociated from all its interests and belongings during the whole period of training, is either permanently lost to the State, or comes back to work at an immense disadvantage for want of knowledge of those of whom under other circumstances there would have existed the truest of all knowledge, the intimate association of school life. We call upon the patriotism of the State to stop this annual emigration, and are glad to be able, on our part, to offer a B. A. course equal to that of any other institution.

In 1891 (for 1892) two courses were provided in the school of arts leading to the B. A. In one course the requirements for the first two years were Latin, 8 hours; Greek, 8; mathematics, 5; history, 4; English, 3; and chemistry and English, 3. For junior and senior, Latin or Greek, 8; English, 4; logic and political economy, 3; physics, 4; psychology, 3; electives, 8. In the other course Latin was required through junior, and modern languages took the place of Greek. In each 61 hours were required for graduation.

The School of Science was separated from the School of Arts and offered five courses leading to the degree of B. S. based respectively on chemistry, botany, zoölogy, horticulture, and entomology. Very little language was required in any of the courses, the work being based almost entirely on science and mathematics.

The changes made in 1891 marked the beginning of a revolution in the arts department which proceeded by easy stages for a decade or more. A year later the work leading to the B. A. degree was broadened into four courses, one based on mathematics, one on modern languages, one on ancient languages, and one on history. The college of science was also enlarged by the addition of a course based on geology.

The faculty and board must have looked upon this work and pronounced it good, for it remained practically unchanged for five years, an unusual thing in the history of the university. Then (1897) an attempt was made to improve it by adding three more courses leading to the B. A. based respectively on chemistry, zoölogy or entomology, and geology, now making seven in all. Latin was

required in all courses through freshman. The substitution of a modern language for Latin in the last three led to the B. S.

The increase in the number of courses was also coincident with greater freedom of election within any particular course. The constants in the course in ancient languages were Latin, Greek, English and mathematics, and in addition French or German, and a natural science and a physical science. After meeting these requirements the student still had sixteen hours for free electives. In all the other courses there was still greater freedom of election. Another noteworthy feature was the inequalities in the requirements for graduation. For the ancient language course one must complete sixty hours of sixty minutes and in this respect the courses based on chemistry, mathematics, and geology were considered its equal, but the student electing the course based on zoölogy or entomology must present sixty-one hours, on modern languages sixty-two, and on history sixty-four. This was not caused by any differences in the requirements for admission. These inequalities were removed the following year (1898), when a course based on economics was added to the list, and all were based on sixty hours. At the same time seven different courses were provided leading to the B. S. degree, based respectively on mathematics, economics, chemistry, zoölogy, geology, agriculture, and horticulture. These also were all based on sixty hours.

This marks the extreme swing of the pendulum. In 1899, instead of fifteen courses leading to two degrees, we find three courses leading to three degrees, the B. A., B. Ph., and B. S., all requiring sixty-four hours. Latin was required through sophomore for the first two and Greek for the B. A. and Latin or Greek through the junior year. In the B. A. course all the freshman work was prescribed, limited election was allowed in sophomore, and free election of nine hours each in junior and senior. The other two courses were characterized by a little more freedom. The science course required eighteen hours of science, fifteen of language, six of mathematics, five of history or economics, and three of philosophy. The same year the statement is made in the matter devoted to the department of agriculture that "agriculture is both a science and an art," consequently two courses are provided leading to the degrees of B. S. A. and B. S. The latter

was identical with the same course in the arts department except that agricultural studies were prescribed in place of limited or free electives.

The next revolution broke out in 1903, when the B. Ph. course was dropped and an advance was made on the elective system over anything previously offered. Two degrees, B. A. and B. S., were offered, each requiring sixty periods for completion. The constants in freshman for both courses were three hours of English and three of mathematics, and three of some foreign language. In sophomore the student was required to present three hours of English, three of the foreign language studied in freshman, and three of some other study pursued that year. This left him six hours of electives in freshman and sophomore each; all the work in junior and senior was elective.

The studies offered were divided into four groups:

I. English, Latin, Greek, French, German, Spanish, Italian.

II. Mathematics, astronomy, chemistry, physics, geology, biology.

III. History, philosophy, political science, economics, sociology, pedagogy.

IV. Mechanical, civil, and electrical engineering, horticulture, agriculture.

As perfected by the faculty, freshmen and sophomores in both the B. A. and B. S. were required to elect at least three hours from II and III, but by a resolution of the board this requirement included only candidates for the B. A. By the beginning of his junior year every student was required to elect a major subject, though the number of hours he must present in this were not stated. Of the sixty hours required for graduation, twenty-four were subject to the approval of the professor in charge of his major subject. He could not take more than eighteen in any subject, nor more than thirty-six in any group. Candidates for the B. A. were limited to groups I, II and III in the choice of major subjects and must offer not fewer than nine hours from each nor more than nine from IV. Candidates for the B. S. were limited to II and IV in the choice of majors and must offer at least eighteen hours from one or both.

A highly specialized course in science leading to the degree of B. S. in Chem. was introduced in 1904 and another in 1908 leading to the B. S. in Physics. All the work is prescribed in both cases.

Military science and tactics were required of all male students. In case excused from this for any cause, they must offer one hour in addition to the above. Female students might offer this extra hour in any subject, including in addition to those mentioned in the group, music, art, elocution, and physical culture.

This scheme remained in force until 1908, when the B. S. degree was dropped entirely. Mathematics was no longer required of candidates for the B. S., but the restrictions hitherto imposed on electives were retained, the statement was made that the equivalent of two years' work must be offered for admission in the foreign language pursued in freshman, and the requirements for graduation were raised to sixty-four periods.

Graduate Work.

There is no graduate school in the University of Arkansas and never has been, though a number of students have pursued work after graduation and have received advanced degrees.

The first mention of any graduate work occurs in the regulations adopted in 1877, when the board provided that graduates wishing to remain for further study might do so without the payment of tuition, but no such student was catalogued until 1878-79, and he was a resident of Fayetteville. After this there were none until 1883-84, when another local student was enrolled. The enrollment was the same for 1884-85 and none for 1885-86.

Down to this time no course of study had been prescribed for graduate students nor any regulations published concerning advanced degrees. The master's degree had already been conferred a number of times, in several instances *honoris causa*. In 1886 the faculty, "following the example of all first-class universities," outlined a plan for graduate work leading to the degrees M. A. and Ph. D. and recommended that hereafter these degrees be not conferred as honorary. Applicants for the master's degree must have previously taken the bachelors, "and in addition must take, at the university, for

a full scholastic year, four daily studies appointed by the faculty." The minimum requirement for the Ph. D. was two years of study, the last of which must be at the university, a printed thesis of at least 2,000 words (later 5,000), and a satisfactory examination, and ability to read French and German. Examination and diploma fees were charged, but no tuition until 1894. In the technical school it was announced that the M. E. and C. E. would "be given after three years to those graduates in mechanical or civil engineering courses who, by successful practice, prove themselves worthy." Later a thesis was required or one year's residence work of fifteen hours and a thesis.

The Ph. D. continued to be offered until 1898, when it was quietly dropped by the faculty. During this time two degrees were granted, one being conferred upon Professor F. L. Harvey in 1890 in view of his original work done in the university. He had been a member of the faculty (1875-1885), serving as professor of theoretical and applied chemistry. In 1893 Professor Fred W. Simonds, who had resigned the chair of biology and geology in 1890, was given the D. Sc. "in recognition of ability and attainments."

The amount of work required for master's degrees was reduced to sixteen hours in 1891. In 1894 the residence requirement was abolished for graduates of this university, but after 1898 they were required to spend at least half the year in residence and after 1899 the full year. At the same time the system of major and minor subjects was introduced and a thesis was required, the thesis to be equivalent to a two-hour course. It must be approved by a committee of three composed of the professor in charge of the candidate's major subject and two others appointed by the president.

The ambitious period of the graduate school was in the early nineties. It was announced that candidates for the Ph. D. might pursue their studies in any one of three groups, consisting of Latin, Greek, German, French, and English for one, chemistry, physics, geology, and biology, for the second, and philosophy and pure and applied mathematics for the third. In their zeal for this work one or two professors actually outlined more graduate than undergraduate courses, but others announced none.

In 1894 the faculty petitioned the board to establish five teaching fellowships at a salary of $200 each. In support of this they recited

the fact that eleven graduate students were in attendance the past year, and that an increased attendance was expected the following year. The board responded by establishing three, but the system was soon abandoned. The following two years marked the heyday of the school, fourteen students being enrolled 1895-96 and eighteen in 1896-97. The following year only three were in attendance. Since then the enrollment has varied from one in 1899-1900 to six in 1908-09. No emphasis whatever is now placed on this work and no courses are offered for it in the annual catalogue. Such students as come either take advanced undergraduate work or make arrangements for special courses.

Normal Courses.

For years the official designation of the university was the "Arkansas Industrial University with Normal Department Therein."

The committee of the board appointed in 1871 to visit the Normal College at Normal, Illinois, contented themselves with a brief statement of conditions in that institution, making no recommendations. The board then decided to leave the determination of the course of study in the normal to its faculty, under the general instruction to make it about equal to that of the best normal colleges of the country.

Acting President Gates was the first principal of the normal department. In 1872 a circular, prepared by him, or under his direction, announced two courses of study, separate and distinct from the university course, which were "designed to furnish a thorough course of instruction to all those who desire to engage in the profession of teaching in the public schools." One course extended over three years, the other over two, the latter being provided for such students as did not have the time and means for the longer course. Both courses were based on the common school branches, beginning with arithmetic, geography, reading, spelling, and writing, and included some theoretical work and practical work in teaching. The longer course included Latin, German, or French (two terms), trigonometry and surveying, English literature, geology, zoölogy, astronomy, general history, mental and moral science, and bookkeeping. A training school was established also where the normal students were

required "to put into practice the theories taught them, under the direct supervision of a training instructor." Apparently this school was left entirely in the hands of students and was called the primary department. In 1874 it was announced that the primary department as heretofore conducted had been abolished. In its stead a training school, in charge of a preceptress, would be maintained in conjunction with the normal, where the teaching would be done under the immediate supervision of the principal and the preceptress.

No further change was made until 1875, when the two-year course was dropped. The following year a four-year course was introduced, preceded by a one-year "preparatory normal." Besides the grammar school studies the preparatory year embraced algebra and Latin. The chief difference between the four-year normal course and the classical course consisted in the fact that no Greek was offered, algebra, French and German were optional, and some work was required in methods, practice in teaching, and the relation of the school to the State, amounting in all to six terms. Two years later no outline of the normal course was given, the simple statement being made that it was identical with the classical course except that normal students had a course of lectures on the methods of teaching and were required to teach elementary classes in the institution. Students completing this course were to receive the B. A. The training school appears to have been abolished after 1875-76, when the instructress was dropped from the facutly.

In 1879 a five-year course was introduced, leading to the degree of Bachelor of Letters. The first year's work was preparatory. The rest of the course paralleled the classical course pretty closely, except in the substitution of science and the purely normal subjects for Greek. The following year the course was rearranged, but the chief difference lay in the fact that it was reduced to four years by cutting off the senior year. No degree was to be conferred, a normal diploma being substituted. In 1885 the first three years of the course included industrial art. The completion of the first two years' work entitled the student to a "Certificate of Proficiency in the branches taught in the district schools;" of the four years, to the distinction of Graduate in Normal Department; and of a graduate course of two years in certain specified subjects to the degree of B. A., but the following

year this was changed to the B. L. At the same time (1886) a two-year normal course was provided in the high school department, which was differentiated from the regular high school course by the inclusion of one year's work in methods of teaching and one in pedagogy. This lasted one year.

The next change was to make Latin, physical geography, physics, botany, general history, ethics, and bookkeeping elective (1887). On the completion of the four years' course the student was now given the degree of Licentiate of Instruction and was qualified to enter the junior class of either the classical, general science, or young ladies' course. The two-year course soon reappears (1891), made so by dropping the preparatory work. It was said to include all branches required by law for state teachers. It consisted of: Pedagogy, 2; physics, 4; mathematics, 5; English, 3; and Latin, 4 in freshman; and general chemistry, 2; civil government, 1; general history, 4; science of education, 1½; Latin, 4; school management, 1⅓; history of education, 1; and school law, 1 in sophomore, and led to the L. I. In 1901 the amount of pedagogy required was increased to five hours in freshman and sophomore each.

The general reorganization of courses made in 1902 brought few changes of consequence to the normal. Once more the course reappears as a four-year course, but the first two years were nothing but preparatory work and were done in the preparatory department. The amount of pedagogy given in the other two years was reduced to eight hours. Any candidate for the B. A. or B. S. could take the L. I. in passing, by electing his major in the department of philosophy and pedagogy, or by taking at least eight hours' work in the department, having thirty hours to his credit in all.

Since 1907 two different courses have been offered, one with Latin and the other with science. Until 1909 they were four-year courses, the first two being preparatory, but in that year they were reduced to three, the last two years being treated as of collegiate grade. Students completing the course receive the L. I. and may have their work, except that in singing and drawing, credited on the B. A. Regular candidates for the B. A. who wish to take the L. I. must offer at least eleven hours in the department of philosophy and pedagogy.

The training school, dropped in 1876, was revived in 1903. It is now called the model school, is taught by normal students under the direct supervision of training teachers and is regarded as one of the best parts of the normal department.

Conservatory of Music and Art.

When the university was first organized the name of W. D. C. Botefuhr appeared on the faculty page as professor of music, but he seems to have had no official connection with the institution until July, 1873, when the board granted him a *doceur* of $200 for extra services, and unanimously elected him to the department of music just created by resolution. He received a small salary from the board and the fees charged to music students. Professor Botefuhr served until 1881. At the commencement of 1880 the board of visitors had recommended that the department be dropped temporarily. If it should be found essential for the female students to be taught music, an instructor could be supplied later.

After 1881 the music department seems to have suffered a decline for a time. Some difficulty was experienced in securing suitable teachers. Finally, 1883, Miss Kate V. King, of Covington, Kentucky, was employed and remained with the university until 1889, when she resigned. In the early part of her stay she seems to have built up the department somewhat. By 1886 the instructor was the best paid teacher in the institution, but almost independent of control. Her pupils were also free of the regulations imposed on others. President Edgar recommended that the department be put on the same basis as the others, except in the matter of tuition, the teacher being paid a salary and the students being subjected to the same regulations as other students. The committee of the board to whom this was referred recommended non-concurrence with a part of the recommendation, holding that as Miss King had labored to build up the department she should not be deprived of the fees. However, the board, declaring that it was the intent of Congress to make tuition as nearly free as possible in all departments, ordered a reduction of $33^1/_3$ per cent. in the tuition charges for music. Two years later at the June meeting fees were ordered paid into the university funds and

the teacher of music was put on a regular salary of $1,500, but in August this action was rescinded and the teacher was to get all the fees.

This seems to have marked the practical severance of official connection with the university for several years, though teachers of music were still catalogued. In December, 1894, the board resolved to establish a department of music, paying the director thereof a small salary and the fees, the department to be under the supervision and control of the president and faculty. The following year two instructors, both females, were employed. There were few music pupils, and the small salaries were found unfavorable to the full development of the department. In consequence the president recommended that it be abolished, if means could not be found to make it more efficient.

Nothing in particular seems to have been done until 1903, when, on recommendation of President Hartzog, it was ordered that the department be raised to the dignity of a school under the title, "Conservatory of Music and Arts," that a suitable curriculum be prepared and that diplomas or certificates be granted. It was also suggested that the director of the school be made a member of the faculty, if consistent. At the same session Paul Schmolck was elected director. With him were associated three other music teachers and two others for the work in elocution and physical culture and art. In 1904 Mr. Schmolck was succeeded by Miss Hazel Archer Yates, who in 1906 was made a member of the faculty as representing the Conservatory of Music and Art. Upon her resignation in 1908 Mr. Henry Doughty Tovey became director of the conservatory.

The art department makes its debut in 1874 with Mrs. V. L. Gray as instructor. Apparently her work was voluntary and her pay dependent upon tuition fees. In 1877 she presented the board with a painting of the university building and grounds which they in turn presented to the executive office at Little Rock. In 1881 she was succeeded by Miss Nettie G. Bedinger and a year later the board provided her department with the necessary casts. At the end of another year she was granted a small salary and a vote in the faculty. The executive committee said that her request for an increase of salary should be granted or the department abolished. They recom-

mended the former but the board followed the latter suggestion (1884). Still there were "art" students.

In dropping this department the board evidently intended to emphasize a different kind of art. In 1885 they asked the legislature for a considerable appropriation to provide "instruction in manual exercise suited to both sexes." They failed to secure this, but appropriated certain funds to make a beginning. The first year instruction in free-hand drawing was furnished to all students except seniors as preliminary to building up a strong industrial arts department. Young ladies were taught needle work, designing, embroidering, brass work and wood work. Instruction was also furnished in the "fine arts" for tuition.

This explains the sudden leap in "art" students from about 15 in 1885 to 280 in 1887. As a matter of fact the number in "art" proper had fallen off to about 5. The enthusiasm of the board not being shared by the legislature the industrial arts department was quietly dropped in 1889. Art continued to be taught at the university in some fashion until 1897 when the department was again recognized as a part of the university and put in charge of Miss Jenny Delony Rice.

In 1901 the indifference of the legislature was given as the reason for abolishing this kind of art instruction also, and the room was turned over to the engineering department with instructions to take charge of and care for the materials. However, the public had not lost the taste for art and there were so many applications for instruction that a teacher was employed and paid out of the fees. In 1903 art formed a part of the newly created conservatory of music and art, the subject being taught by Miss Ammee Leverett. The present incumbent, Miss Elizabeth Galbraith, took charge of the work in 1906.

When the faculty was first organized it seems to have been expected that the commandant, Henry L. Burnell, would furnish the instruction in elocution, but this work was soon transferred to the English teacher. In 1882-83 it was taught by Miss S. E. Harris under protest. It never rose to the dignity of a separate teacher until 1891, when Miss Jessie L. Cravens took charge, a position which she retained until 1898.

In 1899 the department was reorganized and the subject of physical culture was added with Miss Jennie W. Bownam in charge. In 1908 the work was separated, Mrs. W. V. Crockett being put in charge of the department of expression and Mrs. Martha H. White that of physical culture.

DEPARTMENTS OF INSTRUCTION.

Ancient Languages.

As indicated elsewhere one problem over which the founders of the university wrestled was the extent of the latitude allowed them in the land grant act by the phrase, "without excluding other scientific and classical studies." They not only decided that this meant that the classics should not be excluded from the course, but in practice gave them a prominent place. On the faculty page the "professor of ancient languages and literature" stood next after the president. The chair was first filled by C. H. Leverett, who served until 1885, when he was put out for a season in consequence of the order of the legislature for a clean faculty slate. In 1876 French was added to the department and from 1877 to 1881 the professor of ancient languages was expected to teach "modern languages, with English literature and history." From 1881 to 1885 the department was simply that of ancient languages.

When the faculty was reorganized in 1885 R. H. Willis, Jr., was elected professor of ancient languages and ancient history and served in this capacity until 1887. That year, in determining the distribution of duties the board added ancient languages to mental philosophy and assigned them to the president, the presidency being vacant at the time. Professor Willis was retained as adjunct professor of ancient languages. When Professor Murfee became president (1888) ancient languages were taken away from his department and Professor Leverett suceeded Professor Willis as adjunct professor. He was assisted by an instructor in Greek for one year. After this there was no change until 1894, except that Professor Leverett was made a full professor in 1891.

In 1884 the board requested the faculty to arrange the scheme of class work so as to give more time to the department of ancient

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languages, because the professor had not had time to drill thoroughly. After 1887 it appears that instead of being given more time the ancient languages were being assigned a subordinate place. This period is coincident with the time when strenuous efforts were being made to build up the agricultural and mechanical departments and a part of this time beneficiaries taking the ancient languages were required to pay tuition.

In 1894 (January) the department of ancient languages was divided and John C. Futrall was elected professor of Latin and Professor Leverett was retained in the department of Greek. At the same time it was ordered that these professors should teach such other branches as might be determined by the faculty. As Professor Futrall did not begin work until July, Professor Leverett took charge of the Latin, being assisted by some of the other teachers. At the end of this year the two chairs were again combined (January, 1895) and Professor Futrall was put in charge of the department of ancient languages. This position he has retained ever since, except that he was absent on leave in 1899-1900, when his place was filled by Professor Walter A. Montgomery. The department was strengthened in 1896 by the creation of an associate professorship, which was filled by E. F. Shannon. This was abolished in 1902 on account of lack of funds, but revived in 1907 as an adjunct professorship and filled by the election of John J. James. During this interim some assistance was furnished from other departments. Previous to 1908 the adjunct professor taught some classes in the preparatory department.

As the ancient authors are a practically fixed quantity it is unnecessary to say much concerning the courses offered more than that they have covered a wide range of authors and subjects whenever the teaching force would justify it. The freshman work has never been far advanced, though the present head of the department has been moving forward as rapidly as conditions will permit. Previous to the adoption of the elective system few preparatory schools in the State taught anything beyond Cæsar. Indeed, not until 1894 was all of Cæsar finally pushed below freshman. Since then Cicero and Vergil have been taught in freshman, sometimes along with Nepos or Sallust. After the adoption of the elective system a higher course was open

to freshmen who presented four units in Latin, but the old freshman work in Cicero and Vergil was retained for those presenting less work.

Latin prosody is taught in connection with the poets and prose composition in connection with the prose writers. One hour's work in the latter is required in the lowest class and two additional hours may be elected in the higher classes. Of necessity the courses that can be offered are limited in extent—sixteen hours are offered—and these are conducted along general rather than special lines. It is the policy of the department to introduce the student, after he has acquired the necessary reading knowledge, to the literature and life of the people rather than confine him to the dead forms of language.

At first Greek was begun in freshman, but in 1880 two books of Xenophon were required for admission. The order of the board made in 1884 that Greek be begun in freshman wrought no change in the catalogue announcements until 1887, when it was obeyed. Necessarily the beginner's course was continued after the adoption of the elective system for the benefit of those who wished to take Greek, but did not present any for admission. The courses now offered amount to seventeen hours.

Back in the early nineties, the time of university ambitions, extensive graduate courses in Latin and Greek were outlined in the catalogue, including the life and complete works of about all the most prominent writers, one or two of which might be taken in any one year. These elaborate statements were soon dropped, but a few graduate classes were organized. Now, students who desire to specialize in Greek and Latin are encouraged to continue their work, after graduating here, in schools which can offer better facilities for advanced work. Several of the graduates of the department have taken high rank in the leading American and foreign universities.

When Professor Futrall took charge of the department in 1894 it had nothing in the way of equipment save a few reference books in the general library. In 1897 a beginning was made with $100 appropriated by the board. A small biennial appropriation is made by the legislature for the maintenance of the department and with this the equipment is gradually being strengthened. The department now has a good working library of about 500 volumes in which may be

found the complete works of most of the ancient writers, books relating to classical literature, and critical editions of the works of the authors of the classic period. The set of Teubuer texts is complete. The best American and foreign classical periodicals are received regularly, and of some there are complete files.

English.

The first outline of courses presented a few subjects in English but they were not deemed of sufficient importance to be put in charge of a regular professor until 1873, when James Mitchell became professor of history and English. This arrangement was continued until 1876-77, when both subjects were attached to the department of ancient and modern languages, though two teachers were provided to take care of the work. In 1881 they were again divorced and Miss Sallie E. Harris was put in charge of English and history with the rank of professor. She served until 1884, when Howard Edwards took charge as professor of English, French, German, and modern history. Two years later history was put first, "modern" being dropped. During Professor Edwards' term (1884-1890) there were as many as two additional instructors in English, though it is not certain that they taught college classes. On the resignation of Professor Edwards, Lieutenant E. L. Fletcher was elected and served one year. At the end of his term history was detached and R. H. Willis was elected professor of English and modern languages, and Miss Ella Carnall as adjunct. By 1894 there were four instructors in the department, one man, Dr. Willis, ranking as professor, two women, Miss Ida Pace (Mrs. A. H. Purdue) and Miss Hadgie Davies, as associates and one woman, Miss Julia Vaulx, as instructor. Professor Willis served until 1898, when he was succeeded by Ernest T. Bynum, who served two years and was succeeded by his former associate, W. S. Read, who also served two years. With the last named was associated Colbert Searles and Miss Hadgie Davies with the rank of associate and Misses Clara Earle and Allie Deupree with the rank of instructors. In 1902 Professor Read was succeeded by Professor J. W. Carr, who had served one year as associate, and was assisted by Associate Professor E. F. Shannon and Adjunct Professor

Davies. These three carried the department until 1905, when Miss Davies was replaced by A. Marinoni, and Mrs. E. M. Blake and A. L. Harvey were added as instructors.

The alliance of English and modern languages was finally broken in 1906 and Professor Shannon was elected to the chair of English, which he still holds, though now absent on leave. At the time of the separation he was given two assistants and this number has been increased to four. C. C. Alexander served one year (1907-08) as adjunct, and was succeeded by Associate Professor G. G. Greever. Miss Jobelle Holcombe became instructor in 1907 and Miss Pearl Etheridge was added in 1909. During the absence of Professor Shannon his place is being filled by O. D. Wannamaker.

The only English courses mentioned in the outline of courses for the first few years were English diction, rhetoric, English literature, modern philology, and elements of criticism. The first and third were studied two terms, the others one term each, making an equivalent of two and one-third full-year courses. In 1883, when English first appears in the "Departments of Instruction," and at a time when nine different courses of study were offered the student, fifteen terms of English, equivalent to five full-year courses, were required of the candidates for the so-called English degree, though it is not clear that they took any more work in English than other students, who took two years, except in "Early English" and in the "Science of Language."

By 1886 we are on sure ground. Four courses were then offered, one for each year and each extending throughout the year. This was soon reduced to three years and so remained until 1891, when seven courses were offered. These courses reveal a curious sense of proportion, arising, perhaps, from university aspirations. Two of the seven courses were for undergraduates, one for seniors and graduates and three for graduates. However, the last three were given "at the convenience of the professor." In 1895 the undergraduate courses were increased to six in number and the following year the graduate courses were dropped. An urgent appeal was then made by Professor Willis to have the department divided into two. In support of this appeal he submitted the fact that in the last nine years the hours of instruction given to undergraduates in different subjects had increased

in chemistry from 10 to 31, in biology from 10 to 37, in geology from 5 to 14, in mathematics from 15 to 27, and in mechanic arts and engineering from 24 to 8, while there had been no increase in French and German and an actual decrease in English from 15 to 13. This was due to the smallness of the teaching force compared with the number of students. While this department had only two instructors for 443 students, the next largest, chemistry and physics, had the same for 199 students, and the department of mechanic arts and engineering had three instructors for 84 students. Several classes in English had to be divided into sections. Ten years later, when the teaching force had been increased to five, some more work was scheduled, but it was announced that some of this would be discontinued, unless more teachers were provided. The division already mentioned then took place. The English department is now able to offer nine two-hour courses and four three-hour courses, making a total of thirty hours in different subjects.

Of the first courses offered about all we know of the "elements of criticism" is that it was required of seniors for one term, that it was taught by Professor Gates in 1878-79 and that it disappeared in 1881. Our fund of information concerning English diction is not much greater. For a time it was associated with elocution, but Miss Harris finally secured their separation, after which she continued to teach the former to students, the majority of whom evinced an "utter lack of preparatory training," and she also lengthened the course. The term "elements of criticism" makes its last appearance in 1879-80, giving place to "English" in the new style of listing the subjects of study.

For several years rhetoric was offered to sophomores for only one term, but in 1880 it was lengthened to two, followed by one term in composition. In 1885 it was brought down to freshman and another course in the same subject was required of juniors. The texts in use at the time were Abbott's "How to Write Clearly;" A. S. Hill's "Rhetoric;" and D. J. Hill's "Science of Rhetoric." Next year bi-weekly exercises were introduced, based on a thorough reading of "Evangeline," "Last Days of Pompeii," "David Copperfield," "Idylls of the King," and Macaulay's Essays. Few changes of consequence were made until 1903, when this course (three hours) was declared

an elementary course in composition, and associated with the study of American and English literature and class-room themes. At the same time a more advanced course in composition (Genung's Rhetoric) and the history of English literature (Moody and Lovett's), with fortnightly themes, was offered to sophomores. Both of these courses required considerable reading of the standard authors. For a time an effort was made to include composition (narration, description, exposition, argumentation) and elementary Anglo-Saxon, but this was found to be too much for three hours, consequently another course (two hours) was offered to juniors in exposition and argumentation. These three courses, with certain modifications in text books and theme work, are still offered, together with a special course in composition offered since 1908 and described as "a practical course designed to meet the needs of students in engineering and agriculture."

The development of the courses in literature has been more or less steady, though somewhat slow for a decade or more after the founding of the university. During about half of this time literature was given to juniors for only two terms, the rest of the time for three terms. It can hardly be supposed that a great deal was accomplished in that time when students were meeting five classes daily. The method of teaching was a "close study of separate authors, comparison of styles and modes of thought," etc., etc., confessedly a "continuation of the same system" as that employed in teaching rhetoric, instead of a vitalizing course in introducing to life rather than to form and fashion. Possibly this was partly due to limited library facilities, which were often complained of in early days. Manuals of literature, such as Shaw's or Arnold's, were used, supplemented by such works as were available in the library and sometimes students were required to possess certain authors. In 1884 Trustee Coffin secured the passage of a resolution requesting Miss Harris so to reconstruct her courses "that the time and effort of students may be devoted more to the study of text-books bearing upon the structure of the English language and not so much to a course of general reading in standard literature," but the following year an advance was made by offering two courses, one for juniors and one for seniors, lowered the following year to sophomore and junior. The former was mainly a course in prose, the latter mainly in poetry, though there was a mixture in both

and both attempted to cover the greater part of the history of English literature. The courses were soon put back in junior and senior and the latter made "philological in its bent." In 1891 American literature was included in the former and one hour out of four was devoted to Chaucer and Shakespeare. At the same time two graduate courses were offered, one in English and one in American literature. A year later the department was teaching "the English language in every stage of its development, from Beowulf, the first Anglo-Saxon poem, composed over 1,300 years ago, to the 'Arkansas Democrat,' of today."* From 1895 to 1898 the course in American literature and prose style became a sophomore study (two hours), then American literature was offered alone for two years, after which it disappeared to return in permanence in 1906. As now given it is devoted almost wholly to the poets. The course in English and American poets (two hours) began at the same time and ran until 1898 when the American poets were dropped and the English were divided into the classic and the romantic schools, each a half-year course of two hours, the former to alternate with Victorian literature, the latter with American literature. Beginning with 1900 a two-hour course in the English novel of the nineteenth century was offered for a few years, but it was soon merged into a more general course.

Since 1903 the courses in literature have been given by centuries, beginning with the sixteenth and closing with the nineteenth. The first takes the publication of Tottel's Miscellany (1557) as the beginning of modern literature and closes with the predecessors of Shakespeare. The second is devoted to the drama, mainly to Shakespeare. The third follows the contest between classicism and romanticism to the triumph of the latter. The fourth deals with the poetry of the nineteenth century. The fifth covers the nineteenth century novel and essay. Besides these, a course in middle English, which began in 1895-96 as part of a course with Anglo-Saxon, is still offered.

The drama as a separate course first appeared in 1880, when one term of senior was devoted to it. Since then it has occasionally been offered as a separate course, but most of the time in connection with

* A tribute to Professor James Mitchell, first professor history and English literature, then editor of the "Arkansas Democrat."

other literature. From 1888 to 1894 one term was devoted to Chaucer and Shakespeare together, then for a time the latter disappeared except as offered for one year to graduates. From 1900 to 1903 Shakespeare was given a whole course, part of the time in conjunction with "poetics." As already indicated, the drama is now studied as part of the literature of the century in which it manifested the greatest strength.

Philology in some form appears to have enjoyed an almost unbroken career. For the first three years it was described as modern philology, but in some way it was metamorphosed into "Modern Philosophy" for the next three, and finally into "philology." The years 1896-97 mark its last announcement as a distinct course. Both before and since it has been associated with courses in Anglo-Saxon and middle English.

Courses in early and middle English have appeared under varying names since 1886 when a senior course in Anglo-Saxon first appeared. For a short time an additional advanced course was offered, but only one is now given.

The first mention of graduate work appears in 1891, when three graduate courses were announced, besides one in early English and philology for seniors and graduates. The distinctly graduate work consisted of courses in advanced Anglo-Saxon and philology, modern English literature, and American literature. The course in Anglo-Saxon reappeared in 1896, together with the complete works of Shakespeare, each a separate course. Some of these courses were called for by students, but how many were actually given the writer can not say. No graduate courses are catalogued now.

The department is one of the best equipped in the matter of books, the library numbering 500 volumes. It is also one of the largest in the number of students, the enrollment for 1908-09 reaching 612. But freshman English is a required subject.

Modern Languages.

Hardly any department has had a more checkered career than that of the Germanic and Romanic languages. French and German are mentioned in the first outline of courses, but as there were no

college students then they probably were not called for for several years. We know that some German was taught in 1874-75, for one term by Professor W. D. C. Boteführ, the instructor in music. The first mention of these subjects on the faculty page occurs in 1876, when C. H. Leverett was professor of ancient language and French and K. Demmler was professor of civil and mechanical engineering and German. This arrangement seems to have continued until 1880, when H. B. Edmiston was elected professor of modern languages. He held this position until 1885, when the legislature ordered all the university chairs to be vacated. In the reorganization the modern languages were allied with English and history. The last named was detached in 1891. The story of the further attachment between English and modern languages is told elsewhere.

Previous to the creation of the department of modern languages in 1880 it is only natural to suppose that little work was done in these subjects. It does not appear that more than one year's work was required in either, though a part of the time they were made optional with Greek. The creation of the modern language course naturally called for more work and a three years' course in German and French each was provided, but they do not seem to have been put on a par with other courses. Just before his department was abolished (1885) Professor Edmiston protested against the "protective legislation" which shielded Latin and Greek while modern languages were "shoved off into some obscure corner, like a poor relation at a feast," or omitted altogether. He had been allowed three hours a week for German and two for French.

Naturally, there could be no expansion of courses while the languages were the step-children of the department of English and history and laboring under the disadvantage of a requirement for tuition even from beneficiaries. In 1887 the professor in charge actually recommended that they be omitted from the curriculum, if an assistant could not be provided. Even when under this disadvantage, two years' work in each was called for, though the classes were small.

The year 1891 marks a liberal development in the modern language courses. In German and French each three courses were offered, making a total of twenty hours equally divided, besides a graduate course in each. At the same time two four-hour courses in Spanish

were catalogued and one in Italian. It is not likely that all of these courses were taught that year. Soon the number was increased by offering some in alternate years.

Department of German.

As already indicated this department first saw the light as a separate entity in 1906, when Professor J. Rheinhardt was put in charge. After serving one year he gave place to Professor Max Lentz, the present incumbent. His only help consists of student assistants.

Of the courses now offered, four, embracing ten hours of work, are designed primarily to acquaint the student with a working knowledge of the language. Of the remaining courses one is devoted to the leading poets, another to the twelfth and eighteenth centuries with a history of German literature, another to scientific German and the last to middle-high German. The courses offered number eight and include twenty hours of work. A small beginning has been made in the collection of a departmental library. The department is now one of the largest in the university in point of numbers, the enrollment having exceeded 300 in 1908-09.

Department of Romance Languages.

When the separation of English and modern languages, so long urged, was finally consummated in 1906, Antonio Marinoni was elected adjunct professor of Romance languages and put in charge of the department. This position he still holds, having been advanced to the rank of full professor. He has never had any assistance except such as is afforded by student teachers.

The courses in this department, as now organized, embrace the literature of the seventeenth, eighteenth and nineteenth centuries, the French drama, and modern poetry. Eight different courses are offered, embracing thirteen hours of work. The work offered in Spanish and Italian, six hours to each, is designed first of all as introductory and secondarily to acquaint the student with the masterpieces of each. The courses called for by students in 1908-09 amounted to 24 hours. Since 1906-07 the number of students in this department has increased

from 150 to 185 in 1908-09. Three seniors elected their major in Romance languages the last named year.

The department has received reasonably liberal appropriations, $1,500, since 1907. It is expended mainly for books, about 600 now being credited to the department.

Mathematics and Astronomy.

Mathematics has been forced into a few alliances, some of which were not altogether unnatural. For the first year mathematics and English were combined in name under Miss Mary Gorton, but there were no college classes. General A. B. Pearce became professor of mathematics and civil engineering in December, 1873, to be succeeded by Colonel O. C. Gray, who kept the place under varying titles until 1884. For one year, 1876-77, the department of civil engineering was separated from mathematics, but the two were combined again, the second teacher being retained as an adjunct. This position was held for one year each by Charles Waite and J. B. Gordon. The final separation of the departments was made in 1879. Colonel Gray was retained in the department of mathematics and also made commandant of cadets, serving in both capacities until 1884, when he was relieved of the latter.

Upon the general reorganization of the faculty made in 1885 logic was combined with mathematics and E. H. Murfee was elected to the chair thus created. Two years later the subject of astronomy was added. When Professor Murfee became president in August, 1888, he was succeeded by O. C. Gray, who held until 1895, when he was succeeded in turn by Harrison Randolph. G. W. Droke, who became adjunct in the department in 1891, succeeded Professor Randolph in 1897. A year later he succeeded in having the logic transferred from his department, which is now known as that of mathematics and astronomy. B. J. Dunn became associate professor in 1897 and A. M. Harding adjunct professor in 1907, and Miss Josephine Droke instructor in 1908. These constitute the teaching force of the department at this writing.

The courses offered in mathematics for the first several years embraced algebra, geometry, trigonometry, surveying and navigation,

conic sections, and analytical geometry, all of which were finished by the end of junior year. Calculus was soon added to these, curiously enough required in the B. A., but not in the B. S. course. For a time Robinson was a favorite author, his algebra, geometry, trigonometry, and surveying and navigation all being in use at one time (1877-8). His algebra was used as late as 1891. Schuyler, Loomis, and Olney were among the other authors used in early days, followed by Wentworth, Wells, Church, and Byerly.

With the introduction of the four different courses leading to the B. A. in 1891, one of which was based on mathematics, there was an increase in the amount of work offered. Hitherto algebra had been only a freshman study. Advanced algebra was now introduced; also advanced analytics, the theory of equations and determinants, and the theory least squares and quaternions.

In 1900 algebra ceases to be a requirement of all classes in freshman, though still required of engineers, but more advanced courses were offered from time to time. At present, besides the work offered in freshmen, one course of two hours in algebra alone is offered, three other courses are presented in conjunction with other subjects, two with analytical geometry and one with calculus.

Several subjects in the higher mathematics were introduced by Professor Randolph, among them differential equations, theory of surfaces, modern synthetic geometry, modern analytical geometry, the theory of substitutions, and analytical mechanics. Some of these were intended for graduate students only.

Regular courses are now offered in solid and spherical geometry, plane and spherical trigonometry, analytic geometry, differential and integral calculus, equations, analytic geometry of three dimensions, modern analytical geometry, advanced calculus, and differential geometry. None of the work is purely graduate, though three of the courses may be counted on work for the higher degrees.

As now organized the department, with three men, offers seventeen different courses amounting to forty-five hours. But several of the courses are substitutions for similar courses and could not be taken with profit by one who has had the other. Also six courses amounting

to fourteen hours are catalogued, but no more than two of these are offered in any one year.

Astronomy was catalogued from the beginning, one term of three months being devoted to it then. By 1890 we are informed that the term is devoted "principally to descriptive astronomy, together with much Practical as possible in so short a period." Also that "the subject is made interesting and profitable by the use of maps, globe, astral lantern, equatorial telescope, sextant and solar compass."

For many years only one course in astronomy was offered and as late as 1896 it extended over only three months. For one year, 1898-99, even this was omitted, but since then two courses have been introduced. Two hours are devoted to descriptive astronomy and two to spherical and practical, the work all being done by Adjunct Professor Harding.

The department has a library of about 670 volumes, which is the pride of the instructors, and a four-inch telescope and a few other instruments.

Although mathematics was made elective in 1908, the department has experienced no remarkable decline. The enrollment for 1906-07 was 310, for 1907-08, 356, and for 1908-09, 298.

History and Political Science.

History and political science both were deemed of sufficient importance to be at least recognized even in the necessarily crude and imperfect organization effected the first year. The first outline of courses offered one term of the "history of civilization" to seniors. This arrangement continued for three years when the amount of history was increased to two terms and the subject was required of freshmen. Of what this history consisted is one of the mysteries not to be solved by any equations involving x, y and z, for neither the text-book, nor the instructor is known. The year 1873-4 throws a little light on the subject, for we know that James Mitchell was then professor of history and English, but this adds little to our knowledge of the particular field of history taught.

Three years later Professor Mitchell disappears, taking his chair with him. History was then attached to the department of ancient and modern languages and English literature, presided over at that

time by Professor Leverett, and Miss Sallie E. Harris was designated as adjunct professor of English literature and history. Few, if any, changes seem to have been made in the work offered until 1878-9, when history ceased to be required of freshmen. Instead the junior of the course in "Latin Letters" and in "English Letters" must take one term of ancient history, and one of modern history, and the senior must still learn the history of civilization. It appears that the history was really taught by Miss Harris and from her we learn that an effort was made "to show clearly a connected, evolving plan; to deepen impression by the study of biography; to encourage research by allowing discussion of well-investigated points; to add living interest by bringing prominently forward the history of to-day; and, so far as within the appreciation of the class, to make facts the basis of philosophy." The history of civilization was then taught by Professor Gates, the principal of the normal department, and we can imagine that he philosophized broadly on this basis, with Guizot and Flint for inspiration. Certainly Guizot was used along with Freeman a few years later when this course was taught by Miss Harris, who became professor of English and history in 1881 and served in that capacity until 1885. At the same time history ceased to be an appendage in name to the department of ancient languages. As far back as 1878 Miss Harris had raised the question whether United States history should be confined to the preparatory department. In 1882 it was announced that an advanced course in this would be required of candidates for the Bachelor of English Letters. In 1885 a new arrangement was made, ancient history being appended to ancient languages, with Professor R. H. Willis in charge, and modern history to English, French, and German with Professor Howard Edwards in charge. The strength of the history courses at this time may be gathered from the statement that instruction in ancient history, extending through sophomore, was "designed to impart accurate knowledge of the events of the period of classical literature," and that modern history was taught in connection with English, French, and German and in the classes studying those languages. Smith's Smaller History of Rome and Cox's Smaller History of Greece were used as texts in ancient history; no text was mentioned for modern history.

Soon there was another shift and history was sandwiched in between English and modern languages (1887) with Professor Howard Edwards in charge, and Miss R. W. Moss as assistant professor of elocution, English and history. The work now offered was a general history course in sophomore and was required of all taking the Young Ladies' Course, optional with others, but a year later it was required of B. A.'s, B. S.'s and normals, and two terms' work was required in the technical courses. Fisher's Universal History and Labberton's Historical Atlas were used as texts.

Except for the substitution of E. L. Fletcher as professor in 1890 no change of consequence was made until 1891, when the chair of history and pedagogics was created and Professor J. F. Howell was elected to fill it. From that time on the department of history has been a reality in the university, though for a time somewhat handicapped by the above named attachment, and somewhat slow in laying aside its swaddling bands. The attachment continued until 1898, when, on the earnest recommendation of the president and on motion of Trustee Futrall, the chair of history and pedagogy was abolished. In lieu thereof two chairs were created, one of philosophy and pedagogy, with a salary of $2,000, and one of history, with a salary of $1,500. Professor J. W. Fertig was elected to fill the latter. A year later the same trustee moved to abolish the chair of history, and also of economics and sociology, and establish a chair of history and political economy. This motion prevailed and the next day Dr. S. J. McLean, who had held the chair of economics and sociology, was elected to fill the new chair.

This combination was caused partly by financial pressure, though it was intended to provide an assistant. However, Dr. McLean protested against being given the work in history and at a called meeting of the board held in August, on motion of Trustee McDonough, the resolution combining the departments was rescinded and Dr. A. F. Lewis was elected professor of history. Such is his title on the faculty page, but the departments of instruction reveal the fact that he also had charge of the work in political science. The departments have not yet been separated. For 1901-2 Dr. Lewis secured leave of absence, his place being supplied by Professor Arthur C. Barrows. In 1902 Professor J. H. Reynolds was elected. Down to

1907 all the collegiate work was done by one man because of an unwillingness to turn over any of the work to student assistants or an inexperienced teacher. In 1907 an appropriation was secured for an additional teacher and D. Y. Thomas entered on his duties as associate professor in September of that year.

The courses announced for the first year after the creation of the new department (1891) are somewhat disappointing, especially in the sense of proportion. A course in general history, based on Myers' General History and Montgomery's England "with helpful books for parallel reading," was required of sophomores in all courses leading to the B. A. and B. S. The only other courses offered, two in number, were for graduates, one being "Advanced Ancient History" and the other "Advanced Modern History." The "advance" was based on Smith, Merivale, and the Student's Gibbon in the former and Lodge's Modern Europe, Jervis' History of France, Greene's Short History of the English People, and Lewis' Germany in the latter. The following year there was a decided advance. Six courses were offered, one of two hours in constitutional history, a three hour course in general history, a one hour course in English history, a two hour course in ancient history, a two hour course in European history, and a two hour course in American history.

The first of these was really a course in political science and its development will be traced in connection with that subject. The course in general history was the traditional course, covering in outline the world's history from the earliest records to the present. It continued to be offered until 1899, when it finally disappeared. The so-called course in English history, which then was given with special reference to the development of the English language and literature, more properly belonged to the English department, but its character soon changed and out of this has grown the English history courses now offered. Its first development appears to have been into political history under Professor Howell, and then Professor Fertig (1899) added a course in constitutional history. Professor Lewis (1900) combined these into a two hours course on constitutional and political history and the course was increased to three hours by Professor Reynolds in 1903. In 1907-8 two three hour courses in English history were provided to be offered in alternate years. One

is a general culture course covering the whole period of English history and dealing with the political, religious, literary and economic life of the people. The first term of the second course is a more intensive study of the same topics under the Tudors and Stuarts, while the second traces the growth of the British empire and the development of the colonial system.

The course in ancient history was intended at first for juniors, but in 1899 it was made a required freshman study. Since 1902 it has been offered mainly for the benefit of those making Latin or Greek their major. One term is devoted to Greece and one to Rome, and the course is offered in alternate years. The year 1892 marked the introduction of a course in modern European history, beginning with the so-called fall of Rome. At that time it was offered for seniors, but was made a freshman study in 1903 and has remained such ever since. It is not a required subject, but the number of students taking it has shown a healthy growth from 81 in 1903-04 to 175 in 1908-09.

Except for the "advanced course in United States History" required of applicants for the B. Eng. Let. in 1882, no collegiate course in American history seems to have been offered until 1892. A two hour course was then offered to seniors, beginning with "ancient America" and including Canada, Mexico, and South America. In 1899 the colonial period was dropped and the course made one on political and constitutional history. Some dissatisfaction having arisen over the teaching of this subject the board interfered in 1899 and prescribed as texts Lee's Advanced History of the United States and Curry's Southern States in the American Union, but these books were soon found inadequate for a college course and were dropped. In 1903 the colonial period was restored and the course was lengthened to three hours. The course then remained unchanged until 1907 when the colonial period was again dropped, or rather relegated to the course on the British empire, and two half year courses of two hours were added for advanced students, one on the period 1763-1789, and the other 1850-1877.

Two other courses in European history which were first offered in 1900, the French Revolution and Napoleon, and Europe in the nineteenth century, have since had an unbroken career, except that

View Looking East from University Hall.

they have not always been offered every year. Each is a two hour course extending over half a year. For one year alone, 1895-6, half year two hour courses in French and German history were catalogued, but the strength of the teaching force was not sufficient to keep them up. A two hour course in ecclesiastical history was offered in 1894 and continued for three years. For one year Professor Fertig offered a one hour outline course in the history of art. In 1905 President Hartzog offered a course of lectures on the history of fine and applied art. Professor Lewis (1899-1900) offered a special two hour course, extending over half a year, on the Renaissance and Reformation, but none of his successors has repeated it. He also revived the "history of civilization" for one year.

The first outline of courses made a reasonably liberal allowance for political science in the senior year. One term was devoted to each of the subjects, Constitution of the United States, constitutional law, and civil polity. For several years these were regarded as a necessary part of the cultural studies every graduate must take, whether in the arts or technical courses. A term's work in international law replaced constitutional law in 1878 and kept its place until 1884, when all were dropped for one year. Constitutional law then reappeared, but was again dropped in 1887.

Down to this time it is difficult to tell of what particular department political science was made an appendage, though it is certain that President Hill taught at least a part of the courses a part of the time (1877-8) and that Professor Gates sometimes taught "civil polity." In 1885-6 the statement is made that "the work will be distributed among the different professors until it shall be feasible to create a distinct chair." In 1889 the department of psychology, ethics, and political economy, in charge of President Murfee and Mr. J. F. Howell, offered a course in civil government based on Thorpe's and Cocker's Civil Government, Townsend's Analysis, and Anderson Manual of the Constitution. Two years later even this was gone, but it reappeared in 1892 under the guise of "Constitutional History." Judged by its outline this course was the germ of nearly all the courses since offered in political science. Beginning with "Government and its origin" it passes through the development of the English constitution and makes a study of "Government and Administration

in the United States, National, State and Municipal," all this in a two hour course. In 1894 this formidable outline was reduced to "Fiske's Civil Government, lectures and readings." In 1899 it was reduced to one hour and in 1903 disappeared as such.

The course in comparative governments, which is a study of the national constitutions of the leading states in Europe and America, made its appearance in 1899 as a two hour course and has enjoyed a continuous existence ever since, though reduced in 1903 to a half-year three hour course. After a quiescence of fifteen years international law reappeared in 1899 and is still offered for three hours during second term. Since 1903 a half-year two hour course has been offered on American state governments. For a time it was associated with municipal government in the second term, but in 1908 this was replaced by a course on political parties. Beginning in 1904 a half-year three hour course in jurisprudence was offered for two years. The "Political Philosophers," offered in 1902, was revived in 1907 for one year as a history of political theories.

As the work now stands two men in the department of history and political science offer eighteen hours of history and five of political science. As some classes are so large that they have to be divided into sections it is impossible to offer all of these courses every year, but some courses are made to alternate with others in such a way that students are enabled to get a considerable amount of the work, if they so desire.

The facilities for teaching these subjects have not always been the best, but the teachers have at least been alive to the needs of the department. After repeated requests for appropriations to buy books and maps Miss Harris said in 1882: "As well think that mineralogy and botany can be taught without specimens, or chemistry without illustrative apparatus and materials, as that history can be taught without maps and books of reference, or English without actual contact with the literature in which the great thoughts 'of master spirits' have been 'embalmed and treasured up on purpose to a life beyond life.'" She thought it only reasonable that the department of history and English should be treated as liberally as the others. Perhaps her appeal bore fruit. Six years later we learn that the

department owns several "accurate and beautiful maps" and that the library is "comparatively rich in historical works" and is an "invaluable auxiliary to the work of the course."

When he took charge of the department in 1902 Professor Reynolds found 55 books known to belong to the department. From 1899 to 1909 $5,600 was appropriated for the maintenance of the department, most of which has been expended for books, except for two years when the fund was drawn upon for the support of the associate professor. Except for this the greater part of the fund has been spent for books, and several maps and charts. In this way 880 volumes have been added to the departmental library. This has been very important in that it has enabled the teachers to use library methods of instruction. As the library grows this method is used more and more. The lecture system is used to a limited extent in some of the advanced classes.

The growth in attendance upon the courses of study has been noteworthy. For the session of 1895-6 there were 139, in 1899-1900, 185. On the introduction of the elective system there was a falling off, only 81 being registered in 1902-3. Since then, however, the growth has been constant and rapid. In 1906-7 the number reached 200, in 1907-8, 264, and in 1908-9, 307.

The department has rendered some noteworthy services to the university and the State. Since the coming of Professor Reynolds it has secured the passage of a legislative act directing that certain United States and state publications be turned over to the library. In this way 2,000 volumes were secured and these will go a long way toward completing the set of government publications. In addition 100 volumes have been secured from the library of the late Hon. T. M. Gunter and 100 from Mr. Hugh Reagan.

Another and important service has been performed in stirring up and keeping alive an interest in Arkansas history. In the spring of 1903 the professor of history organized an historical society among the students which has since evolved into the Arkansas Historical Association. He has served as secretary of the organization since its foundation, has edited its publications (two volumes), and has been largely instrumental in securing the passage of an act to create a history commission.

Economics and Sociology.

The department of economics and sociology is of comparatively recent origin. From the founding of the university until 1897, with the exception of two years political economy seems always to have been assigned to the president, along with other subjects belonging by tradition to that office, such as mental and moral philosophy. For two years 1884-5, it was attached to the chair of English, French, German, and Modern history. At other times when nominally assigned to the president, it was not always taught by him. For example in 1886-7 it was taught by Professor Murfee, then in the department of mathematics and logic, and he continued to teach it after becoming president. His successor, Dr. Buchanan, did likewise until the creation of the separate department.

June 13, 1896, on motion of Trustee W. H. Langford, a chair of political economy and sociology was created, to be filled at the next annual meeting. When the board met again the following June the election was postponed and the secretary and local members were instructed to solicit applications. Dr. S. J. McLean was finally secured and proceeded to organize the department in September. Concerning their motives for establishing this department the board themselves had this to say:

"In all the leading institutions of the country much attention has been given of late years to the study of political economy. This subject has been thrust forward into still greater prominence by reason of the fact that economic questions constituted the principal issue in the last presidential campaign and are again looming on the horizon of 1900.

In 1897 the board organized the department of economics and placed Dr. S. J. McLean in charge of it. The great prominence and popularity of the subject has assured the success of this department from its organization. Dr. McLean served until 1902, when he was called to Leland Stanford. He was succeeded by Dr H. A. Millis who served one year and also went to Stanford. His successor, Dr. C. H. Brough, is the present incumbent. In 1907 an adjunct professor was added in the person of Neil Carothers, who was made an associate in 1909.

Little political economy and less sociology was offered the student for the first quarter century of the history of the university. For many years "political economy" was one of the subjects required of seniors for one term. The first information that we have concerning the nature of the course is that Perry's Political Economy was used as a text, later Chapin, Mill, Adam Smith, and Say were all mentioned along with Perry. The aim of the teacher was "to give a succinct statement of the undisputed principles of political economy, and to discuss conflicting views with all possible fairness." This about sums up our knowledge of the character and extent of the instruction in economics previous to the creation of the department.

When Professor McLean took charge in the fall of 1879 he found that the schedule had been arranged without reference to his work, yet he organized several classes and found them well attended, especially by juniors and seniors whose time open for electives permitted them to take the work. The following year he was enabled to effect a better organization and offered one course extending throughout the year and six extending over one term or half the year, making a total of nine hours devoted to different subjects. It must be assumed that when only one course was offered in economics it was of an elementary nature. Professor McLean's first course, principles of economics, was of this character. He was able to secure for it only two hours but the time has since been lengthened to three and elementary work in other subjects, such as the labor problem, tariff, and trusts, is included. All of the other courses introduced by Professor McLean are still offered, most of them unchanged, except that later professors have, of course, kept abreast with the most recent literature on the respective subjects. Three hours each for half a year were devoted to money and banking, taxation and finance, and railway transportation. All are still offered, the second now appearing as public finance and the financial history of the United States. The other courses introduced by Professor McLean were in the nature of economic history. The industrial history of America and Europe since 1763 offered three hours for half a year has since been modified by dropping Europe and reducing the time to two hours. The tariff history and problems has been made a three instead of a two hour half-year course. The history of economic thought from Plato to

Aristotle was presented in some form until 1905, when it was dropped altogether.

Two other courses were introduced by Professor McLean before leaving, one on commerce, and one on labor legislation, each a two hour half-year course. The first was changed by Professor Millis to commercial geography and was dropped in 1904. The second was made more general by Professor Millis under the title "labor problems" and it is still offered as "the labor question." The "trust problem" first became a reality to students of the university of 1904, being introduced by Dr. Brough. The successful operation of the Arkansas anti-trust law made a separate course unnecessary, but some attention is still given to the general subject in connection with other subjects. The financial history of the United States, introduced by Professor Millis as a three hour half-year course, was merged in 1906 with the course on public finance.

Two distinctly economic courses have been introduced by Dr. Brough, both three hour full-year courses. One relates to insurance, modern advertising and trust finance, and one to the economic problems of the present. The last is carried on by means of lectures, debates, and discussions. The total work in economics now amounts to fifteen hours. Dr. Brough has also introduced some courses which belong to the realm of law rather than to that of economics, though related to the latter. A course on "law," dealing with corporations, contracts, etc., was offered in 1904, but replaced the following year by one three hour course on business law, which is still offered for three hours during the year. Since 1908 a three hour course in engineering law has been offered for the benefit of students in technology. The work in law amounts to six hours.

Although "social science" was included in the first outline of the B. A. course, about all we know concerning sociology previous to 1897 is that it was taught by means of lectures in 1884-5, probably by President Edgar. After he ceased to be president the subject was not mentioned again until the department of economics and sociology was created.

During his incumbency in this chair Professor McLean offered two courses, one of an elementary character on the principles of

sociology, the other on the problems of social growth, each a two hour half year course. The first is still offered. The second gave place in 1903 to social pathology and this in turn in 1905 to modern methods of charity. In 1904 Dr. Brough introduced a course on socialism, which, as socialism and social reform, is still offered. The total work in sociology now amounts to four hours.

A good working library of approximately 500 volumes has been collected and is being increased as rapidly as funds will admit.

The department has grown steadily since its organization. The number of students enrolled in 1902 was 103. In four years this number had risen to 225 and by the close of 1908-9 to 275. This year there were twelve seniors making their major in this department.

Chemistry.

This department, like most others that are now single, was a long time in securing a final decree of separation, though it had the advantage of starting with a separate existence. In 1873 the board resolved to create the chair of theoretical and applied chemistry and elected Professor T. L. Thompson, of Iowa, to fill it. Previous to this time it is not probable that any chemistry had been taught in the university by anybody. Professor Thompson began work in October, 1873, and served until his death in February, 1875. The chair was left vacant the rest of the year, but it is probable that the work was divided among the other professors, as student assistants were employed in the preparatory department after Professor Thompson's death.

At the June meeting of the board Professor F. L. Harvey, also of Iowa, was elected to the chair of theoretical and applied chemistry, but two years later the name was changed to natural science and chemistry. In 1879, on motion of Trustee Royston, an adjunct professorship was authorized and C. P. Conrad, was chosen to fill the position. This action gave the department of natural science and chemistry two out of a faculty of eight in the collegiate department, not counting the professors of music and of military tactics.

In 1881 the work in science was divided into two departments, Professor Harvey taking that of biology and geology and Professor

Conrad that of chemistry and physics. The latter served until 1885 when he was swept away in obedience to the demand of the legislature for a tabula rasa of the faculty slate. In obedience to the demands of that same body for a reduction of the teaching force the departments were again combined and George D. Purinton was elected professor of chemistry, mineralogy, geology, and biology. Two years later the duties of superintendent of agriculture were added to the department, whereupon Professor Purinton resigned and was succeeded by Professor A. E. Menke (August, 1887) and S. S. Twombly was associated with him as adjunct professor.

In 1891 physics was substituted for mineralogy, geology, and biology and in 1897 the superintendency of agriculture was finally detached. The alliance with physics was kept up until 1905, when that subject was detached and chemistry became a separate department.

Professor Menke served until 1902, when he was succeeded by A. M. Muckenfuss. When the latter returned to Mississippi in 1905 he was succeeded by C. G. Carroll. Adjunct Professor Twombly served until December, 1888. The following August, C. B. Collingwood, who was already connected with the experiment station, was elected to take his place, giving way in turn to G. L. Teller in 1890. A year later he was succeeded by W. B. Bentley, who was raised to the rank of associate in 1894 and served until 1900, when he was called to the Ohio State University. P. H. Walker then served two years, giving place to L. H. Rose and he in turn, after two years, to H. E. Morrow, the present incumbent.

Naturally the first course in chemistry offered by Professor Thompson (1873) was of an elementary character. Students in the B. A. course were required to pursue the study two terms (six months), others one or two terms more. Some experimental work was made possible from the beginning by the at the time generous appropriation of $500 made by the board of trustees for the purchase of apparatus. By 1878 the information with regard to the work is a little more definite. Chemical physics was then studied for one term as introductory to the longer course in organic (or general) chemistry. Three hours a week were devoted to recitations and lectures and ten to laboratory work, about three hundred experiments being performed by the students. Besides his texts the student had access to a few

works of reference, such as Watts' Chemical Dictionary, Wagner's Chemical Technology, Fresenius', Liebig's, Caldwell's, Johnston's, and Johnson's works.

The increase of the teaching force made in 1879 made possible additions to the work in chemistry. Analytical chemistry was offered, one term in qualitative analysis to juniors and one in quantitative analysis to seniors. The latter could also take industrial chemistry throughout the year, and a course in agricultural chemistry was offered to students in agriculture. Except that industrial chemistry was dropped for one year (1882-83) practically no changes were made until the radical faculty changes of 1885 made necessary a reduction in the amount of work offered.

The matter of teaching force was not the only difficulty which had to be confronted. In reviewing the situation Professor Conrad said (1885) that the difficulties were: "(a) Lack of students required to take the regular course in analytical chemistry; (b) lack of time for its introduction as part of the general course in chemistry—one year, and this sophomore, being allowed in which everything is to be learned; (c) lack of a suitable room in which students could pursue their work at all seasons free from interference by weather or other accident and in close proximity to which chemicals and supplies could be stored and necessary apparatus made available." He was further of opinion that "the principles of the science of chemistry and the applications of these in reasoning upon chemical phenomena were beyond the powers of the average sophomore student in attendance here" and recommended simpler methods of teaching, beginning with Appleton's series in freshman and extending the general course through sophomore and junior.

Though not allowed to carry out his own recommendations Professor Conrad had the satisfaction of knowing that they were accepted and acted upon at least in part. The Appleton series was adopted and some very elementary chemistry was taught in the sub-freshman "science." The board appropriated $1,000 to fit up a laboratory in a suite of rooms on the third floor of the main building. The laboratory was supplied with the common necessities and provided accommodations for thirty students. Three courses were offered, but only two were called for the first year after reorganization.

From this time on for several years the alliance with agriculture showed its influence in the character of the courses offered. In 1890 out of six courses, only two belonged to pure science, the others being related to agriculture and technology. The general reorganization of the courses of study made the following year affected this department also, though there was no change in its head. Five courses were now offered, amounting to fourteen hours, practically all in the realm of pure science. By 1902 the number had increased to fourteen and the hours to at least thirty, though the alliance with physics had not yet been broken. At present the department offers twenty-one courses, some of which extend over only half the year, amounting to at least thirty-six hours. The new features introduced by Dr. Carroll, the present incumbent, are physical chemistry, history of chemistry, chemical colloquium, and journal meeting. In some courses the lecture and recitation work is separated from the laboratory work so that students may take one or both and the amount of credits will depend on the amount of laboratory work done. The total work offered amounts to 48 hours.

In 1895, upon the recommendation of Professor Menke, the board created a chair of pharmacy in connection with and under the direction of the department of chemistry and elected W. R. Lamar to take charge. The legislature of 1909 authorized the board to create such a department, if the druggists of the state would supply the necessary funds.

The department of chemistry is one of the best equipped in the university. It occupies a separate building, two stories high, built of brick, at a cost of $8,000. It has received appropriations amounting to $7,000 since 1905, the appropriation for 1909 being $3,000. These funds are expended mainly for apparatus and chemicals and for books and periodicals. The apparatus and chemicals now on hand are valued at $5,000. In the second floor of the building is a lecture room which will accommodate one hundred and twenty students. The laboratories will accommodate one hundred and forty-four students in Chemistry 1, thirty-two in Chemistry 5, and from four to fifteen in the other courses.

The library, though not imposing in size, is modern and highly useful though some of the volumes are out of date. It comprises 480 bound volumes and 75 unbound volumes of journals, dating for the

Chemistry Building.

most part since 1904. Of the journals devoted to chemistry it receives regularly seven published in German, three published in French, and six published in English, all of which are familiar to specialists in chemistry. Standard treatises are added from time to time as funds will allow. Among the recent additions may be mentioned Beilstein's Handbuch der organischen Chemie; Ostwald's Lehrbuch der allgemeinen Chemie; Abegg's Handbuch der anorganischen Chemie; Margosche's Die Chemische Analyse.

The enrollment in the department has ranged from 175 in 1904-5 to 220 in 1906-7 and 150 in 1908-9. In the last year the regulation requiring preparatory physics as a prerequisite to chemistry went into effect and this accounts for at least a part of the decrease. Of the forty-eight hours of work offered in 1908-9 thirty-seven hours were called for by students.

Biology.

Considerable work in biology was required in some courses from the beginning, but it is not known who taught it previous to 1887, when "natural science" was added to the department of chemistry, then held by Professor F. L. Harvey. In 1879 Professor C. P. Conrad was associated with Professor Harvey, but two years later the work was divided and Professor Harvey took the department of biology and geology. The new department continued its separate existence until 1885 when, in obedience to the demand of the legislature that the faculty be "reduced to the number required to meet the necessity according to the number of pupils in the Collegiate Department," it was again combined with chemistry under Professor George D. Purinton. Two years later it was divorced from chemistry and attached to physics, which had not even been mentioned since 1885, and put in charge of Professor F. W. Simonds, but this attachment was of brief duration, physics being dropped at the end of the year. In December, 1890, J. F. McNeil became professor of biology and geology, vice F. W. Simonds resigned, and served until 1899. Meantime (1897) geology was separated and the department of biology was recognized as a separate entity. Professor F. W. Pickell, the present incumbent, took charge in 1899. From the beginning a year's work in botany was required of agricultural students, one term

of classical and engineering students and one term of zoölogy was required of agricultural students. After "natural science" was added to the department of chemistry the work in biology was described a little more in detail. The course in biology was said to begin in the preparatory department with physiology. This was elementary, laying the foundation for comparative zoölogy in the second term of sophomore. Freshmen devoted one term to elementary botany and sophomores one term to cryptogamic and economic botany.

Upon the creation of the department of biology in 1881 this same work was continued and then was added a term's work in advanced physiology; also a term of laboratory work in advanced biology. After the legislative quake of 1885 entomology was included with the foregoing under the general head of biology and comparative anatomy and physiology were treated as "preparatory to the study of stock-breeding."

By 1891 the work in botany had increased to two courses of four hours each and a course in laboratory work of indefinite amount, and three courses in zoölogy amounting to twelve hours. Introductory to this was a course in general biology for freshmen, consisting of three hours of class-room work and six of laboratory. Entomology and horticulture were still looked after by this department, twelve hours or more being devoted to the two.

As now organized the department offers nine courses extending over thirty hours, though not all can be given in one year with the present teaching force. They deal with general biology, botany, and nature study, bacteriology, general zoölogy, comparative anatomy of vertebrates, animal histology and embryology, and physiology.

The number of students taking biology has increased from 56 in 1899-1900 to 115 in 1908-9. The number of seniors making their major in biology has increased from two in 1905-6 to nine in 1908-9.

Since 1903 the department has received and expended $2,719. It has been used to purchase books and periodicals and laboratory apparatus and material. The department has only 415 volumes. The laboratory instruments now belonging to the department are valued at $2,500.00, but are not considered adequate to present needs. Many specimens of animal and plant life have been collected from various parts of the United States.

Geology and Mining.

The formative history of this department down to 1896 has already been related in connection with that of the department of biology. In 1896 A. H. Purdue was elected associate professor of geology and curator of the museum. He was made full professor two years later, and the subject of mineralogy was added to the department. In 1903 the department was designated as that of geology and mining. In 1905 the teaching force was increased by the addition of A. A. Steel as associate professor of geology and mining.

A step toward the separation of the subjects was taken in 1909 when Professor Purdue was designated head of the department, professor of geology and curator of the museum, and Professor Steel was made professor of mining.

Some work in physical geography, geology, and mineralogy was required from the beginning of the university, one term being devoted to each subject. By 1878 we learn that juniors studied mineralogy in connection with lithological geology and that they also gave one term to dynamical and historical geology. Dana's, Cornell's Guyot's, Lyell's and Warren's books were in use, as well as the geological surveys of many of the states and also government reports. Field excursions early became a regular part of the course.

About the only change made in this department upon the creation of the department of biology and geology in 1881 was the addition of a little economic geology. When combined with chemistry, physical geography and mineralogy were dropped. In 1892 only one course of three hours was offered, although Adjunct Professor Meek had been added to the departmental force, but the next year two other courses were introduced, one in historical geology and paleontology, and one in agricultural geology. The work in geology now amounted to about nine hours of lectures and recitations and at least twelve hours of laboratory and field work.

The work was now taught by Professor Meek who, by 1895, had rearranged the courses somewhat and had introduced petrography. When Professor Purdue took charge in 1896 he offered a two-hour course in physiography, three hours in general geology and continental evolution, three in economic geology, one in practical geology, two in

paleontology, two in crystallography and mineralogy and field and special work of an indefinite amount. The hours now offered have been increased to fifteen, but paleontology has disappeared as a separate course and practical geology has advanced from one to a three-hour course.

Although the department was designated as that of geology and mining in 1903, no courses in mining were announced until 1904, when the teaching force was augmented by the addition of Associate Professor Steel. The work in mining was all arranged by him and has been given by him ever since. There were eight different courses, only one of which extended throughout the year, making a total of eleven and one-half hours. They dealt with details of mining operations, mining methods, mine plant and administration, engineering problems of mines, mine examinations and reports, and ore dressing. These courses have remained practically unchanged. Professor Steel has also added two allied courses, one in general metallurgy and one in assaying, the two amounting to four and one-half hours. In connection with the new general course leading to the degree of B. S. in Cement Engineering, which was proposed by him, he has introduced two courses in cement amounting to five hours. The first is an introductory course dealing with cement manufacture and methods of handling the materials, while the second presents a critical study of cement-making machinery, methods of mixing materials, etc.

The growth in the number of students in this department has been steady and constant. In 1896-97 there were thirteen, in 1908-09, 148. The number has never been smaller in any year than it was the preceding.

Since 1897 the department has received $11,900 in special appropriations and has expended it for equipment, supplies and books. The library has grown from 250 volumes to 1,950, and 1,500 pamphlets, all of which may be classed as useful. The laboratory equipment is fairly adequate to the present needs.

The department has been active outside the class room and laboratory. It has examined and reported on thousands of mineral

specimens, has stimulated federal and state geological work and has been the chief cause of the reëstablishment of the state geological survey.

Philosophy and Pedagogy.

For a brief season after the founding of the university the hearts of philosophy and pedagogy beat in unison, but they soon separated, and for many years the former pursued the somewhat uneven tenor of his way in philosophical single blessedness. Pedagogy also pined alone until finally consoled in the arms of history. This made philosophy jealous and, forgetting to be philosophical, he assumed the rôle of suitor and finally won over pedagogy, after securing her divorce from staid old history, so that now they, too, are enjoying a state of mental repose together.

In plainer language the story is this. When the university was founded, N. P. Gates, the acting president, was professor of mental and moral philosophy and principal of the normal department. In December, 1873, he gave place to A. W. Bishop as president, but retained his position in the normal. From that time until 1898, with the exception of one year, following a tradition which was only beginning to be broken down, philosophy was always assigned to the president. When General Bishop resigned in 1874 Professor Gates again became acting president, but philosophy was not mentioned at all. The following year he was designated professor of political economy and civil polity, B. J. Borden serving as professor of mental and moral philosophy. Upon the election of General D. H. Hill in 1876 the work was again associated with the presidency, now as mental and moral science. From 1884 to 1886 it was handled by President George M. Edgar. For a time then the vacant presidential chair was supposed to look after this subject and the ancient languages along with it, but was to be provided with an assistant. For a while Professor E. H. Murfee, of the department of mathematics and logic, acted as president and finally became president and professor of psychology and ethics. In 1894 he was succeeded by Dr. J. L. Buchanan, who retained the same professorial title until 1900, though the department of philosophy and pedagogy was created in 1898.

Down to 1884 logic seems to have belonged to the president's department. From that time until 1884 it was regarded as an appendage of the department of mathematics. With the exception of 1875-76, N. P. Gates served as principal of the normal department from its first organization until 1884. The one year he was president Miss Mary Gorton was principal. During 1884-85 work in this department was practically suspended. In 1885 J. F. Howell became principal of the normal department "and ex-officio principal of the preparatory Mary Gorton was principal. During 1884-85 work in this department was found to interfere with the development of the normal and two years later his title was changed to "senior assistant and instructor in pedagogy." At the same time he ceased to be a member of the faculty. Such was his status until 1891, when he again entered the faculty as professor of history and pedagogy. This position he retained until 1898.

Upon the union of philosophy and pedagogy in 1898 Professor Junius Jordon was elected to take charge of the department and of the work leading to the normal certificate. In 1902 he was succeeded by Dr. W. S. Johnson, the present incumbent. Four years later he was given an assistant in the person of Miss Augusta Nelken as training teacher in charge of the model school. Since 1907 Miss Rose Bland has held this position.

From the founding of the university one of the departments out of which the present department of philosophy and pedagogy was evolved was in name at least a favored child; in reality at times a step-child. The act founding the university made specific mention of a normal department. The first acting president as principal of the department was supposed to have been favorable to it. In his inaugural address President Bishop declared that such a department was inferior to no other in general importance and one that was especially needed to instruct and train teachers for the common schools of the State. In favor of this department its students were exempted from the requirement placed on others to take work in agriculture and mechanics and the number of beneficiaries was made equal to the number in all other departments.

The general normal courses leading to degrees are described elsewhere. The only distinctly normal or pedagogical work offered at first consisted of a year in methods of teaching and an indefinite

amount of practice teaching. When Professor Gates was relieved of the presidential duties he added a term's work in the theory and art of teaching and required some essays on mental development. Normal students had all the time been required to take philosophy. While Miss Gorton was principal a term's work was added on the relation of the school to the state.

In 1875 the president (Gates) could "point with pride to the growth of the normal"—10 students in 1872, 29 in 1873-74, and 56 in 1874-75, "a gain of nearly one hundred per cent. over the previous year." Of the fifty-six, thirteen had begun teaching since June, yet he had to confess that there had been a shameless abuse of the department by students entering to avoid the payment of tuition.

Professor Gates was relieved of presidential duties in 1877, yet there was practically no change in the amount or character of the pedagogical work offered. However, it should be remembered that he was called on to teach subjects belonging to other departments. As late as 1882 he gave only three hours a week to normal work and this amount does not seem to have been increased any during his connection with the department.

During this period the growth in students can not be said to have been healthy and encouraging. For 1875-76 there were 30 of collegiate grade and 21 preparatory, while there were 55 collegiate students in the course in general science and literature out of a total enrollment of 270. The following year the change was slightly to the advantage of the normals. In 1875 there were 10 graduates in the normal, 3 in 1876, and 6 in 1877, but no more for ten years. For this period, with the exception of one year, no attention was paid to normal students in making up the catalogue, but we learn from other sources that there were some—82 out of a total of 441, of whom 120 were collegiate, in 1880-81, and only 69 out of 363 in 1881-82, of whom 88 were in the college. These facts indicate that, while the enrollment did not show a decided falling off as compared with other departments, the work was not pursued with great seriousness, there being no graduates. When Colonel Edgar assumed the presidency he expressed surprise at the condition of the normal department and sought an explanation from his associates in the faculty. His questions implied that there

had been difficulty in "coördinating the normal department to the other departments" and that it had not been efficient and popular. A previous report of the committee of visitors had implied the same thing.

Professor Edmiston's explanation was that it was due to in part to the excessive modesty and lack of self-assertion on the part of the principal and to the well known coolness, not to say hostility, of the president toward both the department and its principal. Professor Gray concurred in this opinion, saying that no proper place had been given the normal work on the daily program, it being first pushed off into a corner and finally out of the university. Another explanation offered by Professor Edmiston was that the courses offered were not such as to appeal to the students. Within recent years there had been no regular students of collegiate grade in the normal, though a few had taken "methods" when not too crowded with other work. He, with Professors Welch and Gray, did not think a strictly normal department was practicable in conjunction with the literary and scientific work of a college, where the students took other than normal work with the regular and suggested the establishment of a chair of pedagogy to "teach how other men teach and work." Professor Gray thought the work should be relegated to the preparatory department.

An effort seems to have been made to carry out the last suggestion. The "normal professor" was made ex-officio principal of the preparatory department, thus reviving the normal department, which had been quiescent for a year. Thirty-five now enrolled as normal students, fifteen in college and twenty in the preparatory. The former studied Hewitt's Pedagogy and Parker's Talks on Teaching three times a week; the latter the first three books of Kellogg's School Management five times a week. At the end of two years the faculty invented a new scheme of classes which, it was thought, would insure the perfect coördination of the normal with the other departments, and the connection of the normal with the preparatory department ceased, but, at the same time, the head of the normal ceased to be a member of the faculty.

The most noteworthy immediate result seems to have been the dropping of pedagogy out of the course for a year, but it was restored in 1887 on petition of the students. Normal instruction was then

begun in sub-freshman and completed in sophomore. Psychology, which was presented to the sub-freshmen in outline, was made the basis of technical instruction. We are told that students were "encouraged and trained to study their own mental phenomena, and to note evidences of similar phenomena in others, especially children." While considerable alteration was given to books and journals, students were taught to "avoid a slavish dependence upon the methods of others, and encouraged to devise methods of their own." In the absence of a model school for practice teaching the members of the class conducted recitations in the common branches by turns. Dewey's Psychology was the basis of the work in that subject and Painter's History of Education formed the basis of a new course.

The students enrolled in the normal for the year 1887-88 numbered 56 out of a total of 443, but there was a steady decline until it reached 29 in 1891 out of a total of 652. There were nine graduates from 1887 to 1891 inclusive. The general reorganization of 1891 wrought no material changes in this department other than joining it with history. The normal was reported in a flourishing condition the following year, with 52 students enrolled. But Professor Howell seems to have been more interested in history than in pedagogy, as he offered eleven hours of the former and only four and one-third of the latter. While he taught 194 students in 1894 only 18 were taking pedagogy and 5 "normal studies." Up to 1898 there was no improvement.

In the beginning seniors studied mental and moral philosophy, one term each. These studies, "so admirably adapted to train the mind and cultivate the heart," were said to "belong to the president's department." And unto these were added modern philosophy, whatever that may have been, and evidences of Christianity. The former fell by the wayside in 1878, but the latter survived until 1886, when it perished during the interregnum. Just before this (1884-85) logic, which had also belonged to the "president's department," was transferred to the professor of mathematics, and mental and moral philosophy departed from their ancient traditions in assuming new names, psychology and ethics. The Hamiltonian philosophy was in vogue, Alexander, Dagg, and Wayland furnished the evidences and the guide to conduct, and Bowen, Jevons, and Fowler guided the

reason to logical conclusions. In 1891 six hours were devoted to all these subjects, two and two-thirds going to psychology, one and one-third to ethics, and two to logic. The time devoted to the first two was slightly reduced in 1897.

In organizing the newly created department of philosophy and pedagogy, Professor Jordan kept the subjects more or less separate and distinct. In the realm of pedagogy he outlined eight courses, three of which dealt in some way with psychology, two with pedagogy, two with teaching and organization, and one with modern educational development, amounting in all to 21 hours. He actually taught ten and also eleven in philosophy, including logic. The courses in this subject included psychology (Hill, Ladd), elements of ethics, and the history of philosophy.

When Dr. Johnson took charge of the department in 1902 he sought to emphasize the close relationship of psychology and pedagogy in the arrangement of his courses. At present he offers a course in the science of instruction based on psychology, one on educational psychology, and one on child study, besides a course on general psychology, abnormal psychology, one introductory to philosophy, and logic and ethics. School management, school economy, and the history of education, as well as some of the foregoing, are offered primarily for those looking to the L. I. certificate. Such as attain this are now entitled to a teacher's professional license. The amount of work offered and given by the department in 1908-09 was 20 hours.

The growth of the department has justified the wisdom of its creation. At the end of his second year Professor Jordan was able to report 51 students in pedagogy and 34 in philosophy, a total of 85 out of 291 in the college and a total of 655, though only 19 were taking the regular normal course. Since then there has been a steady growth and the enrollment has jumped from 145 in 1903-04 to 310 in 1908-09. The number of those taking the L. I. certificate has increased from 3 in 1902 to 24 in 1909. Many of the normal students remain and take the B. A., while some B. A. students take the certificate at the same time that they receive their diplomas.

The equipment of the department is thought by the present head to be at least three-fourths below actual needs. The departmental

library contains 600 carefully selected volumes and about $500 worth of apparatus in the psychological laboratory.

Physics.

The first definite information we have concerning instruction in physics is in 1878-79, when J. B. Gordon was professor of civil and mechanical engineering and mathematics. Under the "Departments of Instruction" we are informed that "natural philosophy" embraces "physics, mechanics and astronomy, and is postponed to the senior year in order that the student may have the light of the higher mathematics in investigating some of the problems presented." The class recited three times a week throughout the year. Previous to this year "natural philosophy" had been required of freshmen for two terms.

The following year the department of natural science and chemistry, in charge of Professor F. L. Harvey, was strengthened by the addition of Adjunct Professor C. P. Conrad. For that year physics is not mentioned in the description of courses, though "natural philosophy" is still included in the brief outline of courses leading to degrees and evidently was taught by Professor Conrad. A year later the course in "natural philosophy" reappears, divided into physics and astronomy. Freshmen studied elementary physics the last two terms, seniors advanced physics throughout the year, all under Professor Conrad. This arrangement, with certain modifications to be indicated, lasted until 1885.

Professor Conrad came from the University of Virginia and had ideas about standards which were not then practicable in Arkansas. The department had practically no apparatus for experimental work. Besides, the professor did not think that the time allowed for the course admitted of this method of instruction. He used the lecture system very freely and then held the students to a strict account on examination. Ganot's text was used by the students and there was special work on acoustics, optics, and electricity. The result was failures and a petition from the students to the board.

The only action of the board at this time was an unofficial request to Professor Conrad to abandon the lecture system, but the following year the board of visitors made an adverse report against Professor

Conrad, declaring that, in his zeal to secure a high degree of excellence in his own department, he had disregarded the rights of others, both professors and students. He had, they declared, systematically overloaded the latter, laying out work that would require all the hours an average student should employ in close study. As a result the present senior class had been greatly reduced and numbers driven off from the junior class. The trustees followed the suggestions of the committee and asked Professor Conrad to modify the course in physics and astronomy "so as to accord with the capacity and advancement of the students in those branches." After consulting with a special committee of the board Professor Conrad substituted "simpler, easier, text-books wherever attainable" and cut down his examinations one half, though he still "leaned to the side of the higher standard."

Upon the reorganization of the faculty and the courses of study in 1885 physics was relegated to freshmen in all courses with additional work for sophomores in the English and general science courses. It was taught by J. M. Whitham, professor of applied mathematics and commandant of cadets, who held this position two years. Physics was then transferred to the department of biology and geology, in charge of Professor F. W. Simonds, but at the end of the year was handed over to the department of mechanic arts and engineering, in charge of Professor Whitham and Adjunct Professor W. E. Anderson. Two years later another change was made, this time for an alliance with chemistry, then taught by Professor A. E. Menke and Adjunct Professor W. B. Bentley, and this alliance was continued until 1904, when it was transferred to the department of electrical engineering and taught by Professor W. N. Gladson and Instructor H. Schapper.

In 1907 for the first time physics was advanced to the dignity of a separate department, in charge of Associate Professor H. Schapper. The present incumbent, Professor G. E. Ripley, took charge in 1908. He has one assistant who gives a part of his time to other work.

Some laboratory work was introduced by Professor Whitham, consisting in "the manufacture of new apparatus, repairing apparatus, the deduction of laws, and the testing of principles taught." Note

books were required. Olmstead, Ganot, Thompson (Electricity), and Larden (Heat) were the authors used. The courses on heat and electricity were for engineering students. The total amount, including laboratory work, does not seem to have exceeded eight or nine hours previous to 1902, when it was raised to ten, all taught by Associate Professor Rose. Two years later, when taught by Professors Gladson and Schapper, this was increased half an hour and the character of the work was changed slightly to make it bear more upon electrical engineering. At the end of another year the amount reached thirteen and one-half hours, all now taught by Adjunct Professor Schapper, except a part of the course in general physics. By 1907 a preparatory course of three hours was required. Besides two courses in general physics there were courses in measurements, theoretical electricity, the kinetic theory of gases, thermodynamics, heat, light, mathematical physics, and elementary acoustics, and a journal meeting for advanced students. The total of all except the last and the sub-freshmen course was twenty-one hours, not all of which was given in one year. Under Professor Ripley the work has been slightly rearranged by giving more attention to general physics and the introduction of a teachers' course intended for those who intend to teach physics in secondary schools. Owing to the inadequacy of the teaching force only three courses, amounting to ten hours, can now be given, though more advanced work is called for by students. The number enrolling in the department for 1908-9 was 149.

This department has had to move about from time to time and occupy such quarters as were available. In 1907 an earnest appeal was made to the legislature for a building, but without avail. The board then appropriated a small sum for a frame building as a temporary structure and the apparatus was moved into this. Much of this was old and of little practical use, though it was estimated to be worth $5,000. In 1908-9 $1,700 was expended for new apparatus, but one night in October, 1909, all of this, together with the building, went up in smoke without a dollar of insurance. The board then generously appropriated $2,000 for new apparatus to tide over until the legislature can be induced to provide for the department.

Military Science and Tactics.

In conformity with the act of Congress instruction in military tactics was furnished the first year and has been given consecutively ever since, though at times in a manner not altogether satisfactory to a military man. A uniform was prescribed for the students and in 1874 a series of regulations was drawn up providing for the organization of the "Arkansas Industrial University Cadets." Drill was required two or three times a week. The amount of labor required of students by the Barker act (1887) interfered with this somewhat for a time, but at least the pretence of drill was kept up. For a long time the equipment of the department was incomplete and unsatisfactory, the guns in use being a lot of out-of-date weapons furnished by the State. In 1892 guns were secured from the federal government. In June, 1896, the board adopted certain regulations in regard to drill which are still in force. By these all male students over fifteen not excused for physical disability are required to drill. The drill season extends from October 1 to November 20 and from March 1 to the end of the season, the maneuvers being gone through with three days each week. The inspection and commencement drills have come to be important events in university life.

Beginning with 1895 the cadets were taken into camp and remained there for a week performing the duties that pertain to an encampment. The first experience was satisfactory but the change from a winter to a summer vacation interfered with this and it was dropped.

It was a matter of pride to the university and former commandants to find many of the old cadets holding commissions in the volunteer army in the war with Spain.

A cadet band was organized in early days but its equipment was meager for many years. In 1890 the board appropriated $100 to buy instruments. In 1894, on motion of Trustee Mitchell, this was increased by $650. A band room has been fitted up and a regular instructor is provided. In 1909 the band was complimented by the inspector as being one of the best cadet bands in the United States.

Besides giving instruction in military tactics, the commandant bears the chief burden of the work of discipline. Absences from

class and infractions of rules are reported to him. In important cases he confers with the president and faculty.

The following have served as professor of military science and tactics and commandant of cadets: Henry L. Burnwell, 1872; Lieutenant E. S. Curtis, 1872-5; Colonel O. C. Gray, 1878-1883; Professor J. M. Whitham, 1884-5; Lieutenant E. L. Fletcher, 1887-8; Lieutenant D. R. C. Cabell, 1890-1; Major Robert W. Dowdy, 1892-3; Major Elias Chandler, 1894-7; Major Wm. P. Stone, 1898; W. A. Ross, acting, 1898-9; J. Lyford Hornor, acting, 1899-1900; Major George K. Spencer, 1900-3; Captain Lanning Parsons, 1903-4; Captain Robert B. Powers, 1905-6; Ernest Given Howe, acting, 1906-7; Captain Carroll F. Armistead, 1907-9; Lieutenant Robert D. Carter, 1909.

CHAPTER VI.

COLLEGE OF ENGINEERING.

I. Courses of Study.

Some work in engineering was offered in 1873-4. No requirements for admission were stated until 1877-8 when they were the same as for the classical course except in Latin. The course extended over four years and, reduced to the language of terms (three terms making a year), the following were required: Mathematics through 9 terms, English 4, science 15, engineering studies, mostly mechanical, 13, history and political science 5, philosophy 3, bookkeeping 1. There is nothing to indicate the length of the recitations nor the number per week. In 1876 more technical studies were added at the expense of others, the culture studies being dropped entirely from the senior year. In 1878 French and German were introduced into the course. Nothing was said of any degree until 1878, when it was announced that students completing the course would receive the degree of civil engineer (C. E.). This degree continued until 1889, when it ceased to be offered for undergraduate work. Since 1891 it has been offered for graduate work.

The course as above outlined included a considerable amount of science. Later modern languages were introduced, five terms being required in these studies. After the reorganization effected in 1885, such culture studies as psychology, ethics, sociology, evidences of Christianity, political economy, constitutional law and calculus were introduced into the senior year, though the most of these were replaced in another year by technical subjects.

In 1880 a course in mining was added, leading to the degree of mining engineering (M. E.). The requirements for admission were the same as in the civil engineering course. It was a four year course and different from the civil engineering course after freshman in the substitution of such branches of applied mathematics as were peculiarly concerned with mining and of one science for another. In

both courses a prominent place was given to chemistry, organic, inorganic, and industrial. The course in mining was dropped in 1886.

After the coming of President Edgar an attempt was made to strengthen the technical school, at least on the side of the published courses, if not immediately in the matter of teaching force. During the year 1885-6 the faculty carefully considered the matter and presented an entirely new outline to the board for their approval. The president declared the two courses offered, one in mechanical and one in civil engineering, "equal to similar courses in some of the older of the best institutions." The faculty thought that the vast mineral resources of the state called for a course in mining engineering but decided that it could not be offered with the limited number of scientific teachers then available.

The technical courses outlined in 1886 were technical in character as well as in name, as the following outline will show.

(See opposite page.)

	Hrs. of Recit'n	First Term.	Second Term.	Third Term.
Freshman Classes.	1st	Algebra.	Alg. and Geom.	Geometry.
	2nd	Mech. Drawing. Workshop Appliances.	Zoology.	Botany.
	3rd	English.	English.	English.
	4th	Physics.	Physical Laboratory Work.	Elementary Mechanics.
	5th			
	6th	Shop Work and Drawing.	Shop Work and Drawing.	Shop Work and Drawing.
Sophomore.	1st	Mechanical Drawing.	Mechanical Drawing.	Mechanical Drawing.
	2nd	Elements of Mechanism 3	Elements of Mechanism 3.	Elements of Mechanism 3
	3rd	Geometry.	Plane Trig.	Trig. and Surveying.
	4th	General Chemistry.	General Chemistry (Heat).	General Chem. and Lab.
	5th	Electricity.		Physical Laboratory Wk.
	6th	Shop Work 2.	Shop Work 2.	Shop Work 2.
Junior.	1st	Analyt. Chem. Qual.	Analyt. Chemistry Qual. 4.	
	2nd	Analytical Geometry.	Analyt. Geometry and Calculus.	Calculus.
	3rd		Element. Applied Mechanics 3.	Elem. Applied Mechanics.
	4th	Machinery and Mill W'k.	Machinery and Mill Work.	Machinery and Mill Wk.
	5th	Steam Engine and Boilers	Steam Engine and Boilers 3.	Mineralogy.
	6th	Drawing.	Drawing.	Drawing.
Senior.	1st	Rankine's Steam Engine	Rankine's Steam Engine.	Rankine's Steam Engine.
	2nd	Lectures on Designing.		
	3rd	Astronomy.	Astronomy.	Lectures on Designing 3 Mech. and Hyd. Engineering 2.
	4th	Applied Mechanics, (2nd Term).	Applied Mechanics.	Applied Mechanics.
	5th	Ind. Chemistry, hf. term. Ethics, hf. term.	Ethics and Ev.	Christianity (in 3d term)
	6th	Drawing.	Drawing.	Thesis.

The course in civil engineering was very similar, substituting surveying and field work for mechanical studies and shop work. The degrees offered were B. M. E. and B. C. E. respectively, which have had a continuous existence ever since. In addition to the foregoing a four year mechanic arts course was offered, leading to no degree. It was identical with the degree courses through freshman. Besides technical subjects, the last year included general history and pure mathematics.

The courses as thus outlined remained practically unchanged until 1891, when a course in electrical engineering was added. All three were now four year courses and were identical through sophomore, except that a little differentiation was allowed in the third term after 1892. The lower classes were characterized by more technical work, five out of eighteen hours in freshman and sophomore each being of this kind. In junior and senior about the only subjects not technical were pure mathematics and astronomy, geology, chemistry and business law. In 1892 a little political economy was injected into the course in electrical engineering for some reason and kept there two years. The hours required for graduation were seventy-six, and the degree given was that of Bachelor of Electrical Engineering (B. E.E.). The senior year was devoted almost entirely to electrical subjects with the special view of preparing graduates not only to work in or manage light plants and electric railways, but also to design and construct electrical machinery. The "Course in Manual Training" was still offered. Though extending over four years it covered only the work of sophomore year because of lower entrance requirement. This course was designed to enable young men to fit themselves for a trade, including the management of boilers and dynamos, and to prepare themselves to teach in manual training schools.

In the more dignified statement of the "Organization of the University" adopted in 1893. "The College of Mechanic Arts and Engineering" was said to offer courses in mechanical engineering, civil engineering, electrical engineering, manual training normal courses, stationary engineer's course, and a trade's course, though the last two did not materialize in the outlines of work until a year later and the manual training normal course never did. A short course (two years) in electrical engineering was introduced in 1894 also. At this time

the course in manual training was styled "Mechanics Arts Course." The first three only led to degrees and were practically unchanged from the oulines already given and remained so, except for an increase to seventy-five in the hours required for graduation, until 1897, when the lower classes were separated and made slightly different in the character of their work. At the same time the hours of work required for graduation were reduced to seventy exclusive of military tactics. Two years later they were reduced to sixty-four plus thesis, the latter being considered equivalent to three. An attempt was now made in the faculty to reduce all courses to uniformity in the amount of work required for admission and for graduation, but the technical faculty resisted this since such a rule would practically have forced them to require Latin for admission. However, such a rule was carried and they saved themselves only by appealing to the board. Because of the lower entrance requirements to the technical school they required more hours for graduation than were called for in the arts and science courses.

The introduction of the elective system in the arts department (1902-3) brought a limited amount of free election into the engineering courses also, ranging from three hours in the B. E. E. to nine in the B. M. E., all subject to the approval of the head of the department. Besides this the student was allowed an option of English, French, German, or Spanish for three hours of language. The only constant arts studies common to all three courses were freshman English and mathematics and the optional language courses just mentioned. The requirements for graduation varied from sixty-four periods plus thesis in the B. C. E. and B. E. E., to sixty-six plus thesis in the B. M. E. By this time the requirements in the B. A. course had been reduced to sixty periods. The following year marked the revival of the course in mining engineering, leading to the B. M. E. degree, and the creation of a new one, a course in chemical engineering, leading to the B. Ch. E. degree. In the B. Mi. E., mathematics and English were both constants through freshman; in the first there were no electives, in the B. Ch. E., only three hours. The requirements for graduation were sixty-four periods respectively. The year 1908 brought forth another course, leading to the degree of Bachelor of Cement Engineering, requiring sixty-nine and one-half periods for graduation.

Engineering Hall.

Six hours of electives were allowed. Before the degree is granted the candidate must spend at least six weeks in actual work at some plant, preferable in the vacation between junior and senior years.

All of the foregoing technical courses, the B. M. E., the B. C. E., B. E. E., B. Ch. E., B. Mi. E., and B. S. Cem. Eng., are now offered in the technical school. The hours required for graduation at this writing vary from sixty-six in B. M. E., to seventy-one in B. Ch. E.

II. Departments of Instruction.

Mechanical Engineering.

A so-called course in engineering was outlined for 1873-74 and instruction provided in the person of General N. B. Pearce, professor of mathematics and engineering. Two years later he was succeeded by Colonel O. C. Gray, professor of mathematics and civil engineering, who, with the exception of one year, served in that capacity until 1879. For that one year, 1876-7, engineering was associated with German under K. Demmler, of Germany. From 1877 to 1879 there was an adjunct professor of civil and mechanical engineering and mathematics, Charles Waite first serving and then J. B. Gordon. The last year of his service Colonel Gray was also commandant of cadets.

The real separation of the department may be said to date from 1880 when, on motion of Trustee Thompson, the chair of applied mathematics and engineering was created and J. B. Gordon was elected to fill it. Professor Gordon dying before the end of the year Professor R. E. Hardiway, of Alabama, was called by the executive committee to fill the chair for the rest of the year. It was then filled by J. D. Tradwell for one year and A. V. Lane for two, the latter resigning in 1884.

Upon motion of Trustee Martin the board of visitors was requested to coöperate with the trustees in maturing a plan for "the inauguration of the mechanics and agricultural departments contemplated in the original creation of the university." The visitors responded by resolving that the time had come when the trustees should make provision for such instruction "as far as the means at their disposal will permit" and suggested that the chair of civil engineering be consolidated with that of mathematics.

The board declined to follow this suggestion, created the "chair of applied mathematics (physics, astronomy, and engineering)," and elected J. M. Whitham to fill this and serve as commandant. In 1887 he became "superintendent of mechanic arts and professor of engineering," in which capacity he served until 1891. His successor, C. V. Kerr, served under the same title until 1896 when G. M. Peek came in under the same title but a year later became superintendent of mechanic arts and professor of mechanical engineering. This combination was kept until 1903 when the first part was dropped, though the duties of the incumbent have not thereby been lessened. In 1898 C. E. Houghton, of Ithaca, New York, succeeded Professor Peek, but resigned in January, 1903, when B. N. Wilson took charge.

Beginning with 1887, when all the engineering work was in one department, there was an adjunct professor and also five assistants, four of whom gave their time to mechanical work. After the separation into departments the professor of mechanical engineering was assisted by an adjunct professor, T. C. Treadway in 1903-4. Since 1905 the position has been filled by Brainerd Mitchell, now associate professor. There are also two other instructors now, besides assistants in the shops.

As now organized the department of mechanical engineering is able to offer courses in wood, forge, foundry and machine work, drawing, engines (steam and gas), mechanics, machine design, experimental engineering, hydraulics, refrigeration, R. R. engineering, heating and ventilation, separated into twenty-five courses.

In the fall of 1902, the departmental equipment was destroyed by fire, leaving practically nothing of value. At this time, the enrollment was fifteen students. In 1909, the library consisted of about 200 useful volumes and nine regularly subscribed for periodicals; the total value of the present equipment is about $20,000.00.

The regular enrollment has increased to 35, besides which there was a large number of students enrolled in other courses taking work in this department. Four seniors selected this subject for their major in 1909.

Civil Engineering.

A little civil engineering was taught from the first inception of the school of engineering and it was recognized in the faculty title most of the time until 1879. It then disappeared as a separate designation and did not reappear until 1891. The position of adjunct professor of mechanical engineering and instructor in drawing, first created in 1887, seems to have evolved into that of adjunct professor of civil engineering in 1891 and was then filled by G. C. Schoff. In 1893 he was succeeded by J. J. Knoch, the present incumbent, who became an associate in 1894 and full professor in 1898. The definite separation of the department took place in 1897.

Student assistants were provided in 1900 and these were followed by an instructor. In 1905 V. P. Knott was elected associate professor of civil engineering and two years later L. B. Shaver was added as adjunct professor. He was succeeded by P. L. Huntley in 1909.

The department of civil engineering offers courses in surveying extending over three years embracing land surveying, leveling, topography, and railroad reconnoissance and triangulation and geodosy in the senior year. Considerable time is spent in the field throughout the year and one week is spent in camp. Besides the above there are courses in masonry construction, roofs and bridges, sanitary and water-works engineering. The total work offered now amounts to 27 hours, given in 15 courses, all of which were called for in 1908-9.

From 1903 to 1907 the department received special appropriations amounting to $9,000. The value of the laboratory, instruments, and other equipment is now estimated at $10,600, practically all of which has been added since 1893. The library numbers 700 volumes.

The attendance in the department has risen from 40 in 1901-2 to 61 in 1908-9. In 1893 four seniors selected civil engineering as their major subject; 1908-9 there were 11.

Electrical Engineering.

As far back as 1886 a little "electricity" was taught, probably as a part of physics. Electrical engineering appears for the first time in 1888, seniors in the M. E. and C. E. courses pursuing that subject

through the third term. An instructor was provided in 1891 with the rank of adjunct professor and the place was first held by H. B. Smith. He was succeeded in two years by W. E. Goldsborough. In 1894 W. N. Gladson became associate professor of electrical engineering. In 1897 the department of electrical engineering was created and he became its head, but was not made a full professor until 1898.

In 1900 an adjunct professorship was created, held first by W. A. Treadway and later (1904-5) by H. Schapper in connection with physics. L. S. Olney became associate professor in 1906 and still holds this position. The position of assistant, first created in 1904, was raised to the rank of an adjunct professorship in 1908 and was given to V. A. Harding, who was succeeded by W. B. Stelzner in 1909.

In 1894 only eleven hours were offered in electrical engineering. Now there are thirty-one, all of which were called for in 1908-9. Practically all the work in electrical engineering proper is done in the junior and senior years. The general design of the course is to familiarize the student with power plants, street railway operation, and telephony and telegraphy. Four different courses of two hours each are devoted to drawing with special reference to designing of electrical machinery. The class room work in theoretical electricity is practically illustrated in the laboratory. The enrollment of students has grown from 7 collegiate and 12 preparatory in 1893 to 87 in 1908-9. Three seniors selected this subject for their major in 1908-9 and there was one graduate student in this department.

Since 1897 the department has received special appropriations ranging from $2,000 to $5,305, amounting in all to $20,665. This has been expended mainly for laboratory equipment, furniture, fixtures, books, and supplies. The present value of the laboratory equipment is about $15,000, but is not adequate to present needs. The library comprises 178 bound volumes, 980 unbound, and 250 pamphlets. Fourteen periodicals devoted exclusively to engineering are regularly received.

This department has rendered service to the people outside the instruction furnished in the class room. It has begun a survey of the water power of the state and had examined the White River as far down as Buffalo Shoal and the North Fork up to Henderson. The work will be continued during the summer vacations.

CHAPTER XVI.

THE COLLEGE OF AGRICULTURE.

I. Organization and Courses of Study.

The college of agriculture, beginning in the protoplasm, finally evolved, after many struggles, into an institution recognizable under that name. The story of its evolution is so closely interwoven with that of the agricultural course of study that the two will be treated together.

At the very organization of the university the board unanimously resolved (October 18, 1871) that the executive committee and the committee on grounds and buildings should "give especial attention to the creation and as full development of the agricultural and mechanical departments of the university as the funds will allow without detriment to the normal department therein, it being the chief object of the Arkansas Industrial University to educate in agriculture and the mechanic arts." But the chief object was postponed until a more convenient season. The first catalogue and circulars merely announced that a full course in agriculture would be prescribed next year, the unexpected difficulty in securing the agricultural college script being given as the cause of the delay.

In fulfillment of the foregoing promise a four-year course was outlined. Reduced to the basis of a subject studied one term of approximately three months, sixty-one such term studies were required. Of this work fully one third of it was of a distinctly agricultural type, embracing such subjects as manual of farm, practical agriculture, horticulture, mechanical treatment of the soils, stock breeding, propagation of plants, and rural architecture, and another third was of closely allied subjects, such as geology, chemistry, etc. Mathematics and a little English and history made up a remainder of the first three years. The fourth year contained a liberal sprinkling from the culture studies of the senior year in the classical course, embracing such studies as mental and moral philosophy, political

economy, history of civilization, constitutional law and current history. No conditions were prescribed for admission, but evidently the student must be ready to begin algebra.

This was altogether in harmony with the resolution of the board, passed in January, 1872, that the memorial to Congress in regard to the script should "convey the idea that the agricultural and mechanical departments may appear very prominent in connection with the idea of the normal department." So also was the announcement that a farm had been secured, and that the entire crop had been raised by student labor "under the supervision of the faculty." Work was voluntary, was compensated at the rate of five to fifteen cents per hour. There is no indication that it was intended to serve primarily as a part of an agricultural education. Rather it was intended to enable students to pay their way.

The course was prescribed, the farm had been purchased, and the agricultural college script secured, but agricultural education did not flourish. Another explanation must be found and it was discovered in the general educational conditions. At the time the university was founded "so great was and still is the demand throughout the State for general education, that the university rapidly came and from necessity to assume, in part, the form of an institution for general instructions." The law has provided for a normal department, "which it becomes our duty to develop, nevertheless. 'Agricultural and Mechanical Arts' will receive the full attention that the acts of congress contemplates, when many of the young men, admitted into the institution, and who are the sons of farmers, shall have become more thoroughly grounded in the rudiments of general knowledge, the special training for mechanical and agricultural life then beginning.'"

A year later the board seemed to think the time to make this beginning had arrived and issued the order, already recited in connection with the B. A. course, that all beneficiaries, except normals, should take a course in agriculture and mechanics, with permission to take such other subjects as circumstances would allow. However, at the expiration of another year the executive committee of the board stated that most of the beneficiaries were preparatory students, hence not qualified to take the agricultural course.

In 1877 Latin, French and German were introduced as optional studies, but at the end of the year Latin was dropped out. General history was replaced by English diction, rhetoric by physiology, and political economy, moral philosophy, the constitution of the United States and history of civilization were replaced in the senior year by industrial chemistry, physics, current agricultural topics and a thesis. Within a year rhetoric was restored. All these changes seemed to have been made by the faculty without any interference on the part of the board.

For the first time a statement was now made of the requirements for admission and they were said to be the same as for admission to the classical course with the exception of Latin. In another year this was changed to the course in science, with the exception of French.

So far as one might perceive the course in agriculture was its own reward, for up to this time no mention was made of any degree. But now (1879) the student could look forward to becoming a Bachelor of Agriculture.

It should be remembered that, with the exception of 1872-3, there had never been any professor of agriculture. For one year that position was held by Richard Thurston, M. D. But this condition was not wholly due to indifference on the part of the university authorities, though it perhaps did show the relative importance which they attached to the different courses. They freely confessed "that while important branches relating to agriculture and the mechanic arts" had been taught at the university from year to year, little had been done in the advancement of practical knowledge of those subjects. Down to 1884 the instruction had not gone beyond a "knowledge of plants, the analysis of the soils, minerals and a practical knowledge of chemistry." This was explained by the president and the board as due to insufficient legislative appropriations, though the legislature had been urged to grant such appropriations ever since the founding of the university. The board asked the legislature of 1885 for $15,000. The joint committee appointed to visit the university spoke of the agricultural and mechanical departments as practically non-existent and recommended the appropriation of $10,000 for the agricultural and a like sum for the mechanical department, but their recommenda-

tion came to naught, though the management of the university was freely criticized in and out of legislative halls.

Somewhat discouraged but not disheartened President Edgar now took up the matter with the board. He recited that the land grant colleges which united theoretical with practical instructions in agriculture and mechanic arts were doing the most good and had the largest attendance. He therefore recommended the appropriation of $5,000 out of the funds available to advance agricultural and mechanical studies, mainly the former. The board increased the facilities for instruction in biology and general chemistry and authorized the professor of chemistry to put the farm in better condition.

The so-called agricultural course was now (1886) given the prominence of first place in the catalogue. However, as there was no professor of agriculture, it is hardly necessary to add that the course was not particularly strong on that subject. The course, which extended over four years, began with English grammar, arithmetic, geography, and practical agriculture or shop work and ended with psychology (lectures), ethics, political science, trigonometry, agricultural chemistry, lectures on entomology and veterinary science, breeding, feeding, and marketing stock, and farm implements and products. On completing this course the student was given the distinction of graduate in agriculture. Two more years on technical and cultural studies entitled him to the B. A., but this was changed to B. S. the next year. Still no student asked for the course.

The next legislature proved more responsive, appropriating $8,000 for the agricultural department and giving general direction about the constitution of the faculty and course of study so as to favor agriculture and mechanics. A still further premium was put upon work in this department by making tuition free while tuition must be paid by all taking the classical course.

The next catalogue states that the "board of trustees and faculty of the institution, aware of the necessities of the state and fully in accord with the policy outlined by the legislature, have done all in their power, in laying out the appropriation and drawing up the course of study, to meet the wants, both of the mass of the State, as

well as of the minority also in a subsidiary way. We are fully persuaded that the agricultural courses here offered and the facilities afforded by the legislative appropriation will enable us to turn out graduates in these departments that will compare favorably with those of any other school."

The course on which this claim was based extended over six years and led to the degree of Bachelor of Scientific Agriculture (B. S. A.). The first two years were preparatory and contained no agriculture whatever. One recitation a week in elocution was required through freshman and sophomore. The distinctly agricultural work was about the same as that offered heretofore. No professor of agriculture had been supplied, though a year later the professor of chemistry was denominated superintendent of agriculture and he was assisted by an adjunct professor of chemistry and agriculture, and at the expiration of another year still another assistant was added with the same title and also a full professor of biology and geology. A "short" course, extending over four years and leading to no degree, was added in 1888. It differed from the long course in that agricultural studies were begun the second year. In addition the Barker act of 1887 required each male student to work three hours each school day in the field or shop. For this the board allowed three cents per hour and later raised this to five.

The fact that the short course led to no degree led Professor Menke, superintendent of agriculture, to think that this put it at a disadvantage and he recommended that it be put on a par with the normal course by granting a diploma but not degree. This would please the newspapers and the public who were continually asking "How many graduates in agriculture have you?" and would do no harm.

At this juncture a word should be said about the farm. A part of the land secured when a site for the university was purchased seems to have been used as a farm and H. C. C. Boteführ, one of the first trustees, took charge as superintendent until March 3, 1873. It was then put in charge of the president until the arrival of Professor T. L. Thompson. Upon his death in the spring of 1875 it was turned over to one of the students.

There were four acres in orchard and some additional cleared land which was planted to corn and other crops. As first conducted the design seems to have been as much to give labor to students as to furnish demonstrations of scientific farming. It was conducted at a loss. For the year 1874-75 the expenditures were $436.68, the receipts from sales $308.50. There were, however, a few permanent improvements included in the former sum. Two years later the expenditures were $419.20, the receipts $27.70. For the year ending June 1, 1884 the expenditures were $559.81; receipts, $18.76.

During this time the farm seems to have been going from bad to worse. In 1887 Prof. Menke reported that he found three acres in orchard, three acres in cultivation, forty acres on which the timber had been cut, part of a stone wall, "a pair of antediluvian mules and a tumble-down shed." The orchard and the three acres in cultivation were fenced. The orchard probably was the result of the labors of Professor Purinton who, the year before had set out a lot of fruit trees and small fruits, which were presented to the farm by Mr. Gill, of Springdale. President Edgar had stated that $20,000 was needed to buy additional lands, build farm houses, buy tools and stock and build a dairy. He also wanted $5,000 for student labor, stating that one reason why there were so few students in agriculture was that the instruction was all theoretical.

The senate committee of 1889 which visited the university strongly urged the purchase of the Gregg place (400 acres), which, it was believed, could be secured for $14,000 and this was backed up by the station people, but the question was complicated by factional quarrels and the legislature failed to seize a splendid opportunity. In spite of such handicaps, some advances were made. Crops of wheat, corn, potatoes, and mangolds were planted with satisfactory results, a dairy was built, and special attention was given to the dairy herd. The Hereford and Holstein cattle swept off eleven first prizes at Springfield, Missouri, in competition with Missouri and Kansas cattle.

With these advantages in the way of farm and dairy, compulsory labor, and tuition required in the arts and science courses, the agricultural department shows signs of becoming a reality. Previous to 1887-8 there were no students catalogued as taking the agricultural

course. That year the number was 48, the following year, 70, and in 1890, 66.

The faculty found objections to so much compulsory labor and induced the legislature of 1891 to reduce the hours from three in all classes to two in all below sophomore. At the same time the requirement of tuition from beneficiaries taking arts and science courses was abolished. The "School of Agriculture" now makes its appearance, consisting of the "Experiment Station" and the Farmers' Course." The policy of the present management was said to be to "unite practice with theory." The six year course was quietly dropped and with it the B. S. A. degree. The short course also disappears, being replaced by a two year "Farmers' Course for Certificate in Agriculture." The first year consisted of three hours of biology, three of English, four of physics and five of mathematics. In the second year the requirements were three and one third hours of general chemistry and eleven and two thirds hours of purely agricultural studies, all specified. Students completing this course were allowed to take junior and senior in the college of science and graduate with the B. S. Special attention was directed to the facilities for teaching dairying.

It will be interesting to study the agricultural faculty at this stage in the development of the school. It consisted of a professor of chemistry, of biology and geology, of mathematics, of military science and tactics, of English, an adjunct professor of chemistry, the veterinarian of the experiment station, and the foreman and assistant foreman of the farm.

For some reason the enrollment fell off exactly fifty per cent, reaching only 33 in 1891, though it was 49 in 1892. The board then began to devise means of bolstering up the department and began by offering a prize of $25.00 for the best five pounds of butter made by a student at the dairy, $15.00 for the second best, and $10.00 for the third best. However, this seems to have stimulated the wrong way, for next year (1893) the enrollment fell to 27. Trustee Mitchell then moved that three of the agricultural faculty be requested to formulate a plan by which students could be encouraged to enter the agricultural department and remain until they completed the course. What they recommended is not known to the writer, but a few weeks later, on

motion of Mr. Mitchell, three prizes of $50.00, $30.00, and $20.00 were offered for the best essays on subjects relating to horticulture, the essays to be read at commencement. That year (1894) there was a slight increase, 33 enrolling, though only three were in college classes. But this was better than any other southern college had done, except one, and was one in excess of the collegiate students in the long agricultural course at the University of Wisconsin.

These and other facts led President Buchanan to make the following remarks on the agricultural department in his biennial report to the board: "The farming interests of our country are now, and for sometime have been, experiencing great depression, and therefore in view of their importance, which is second to no other interest, are entitled to whatever aid the most friendly legislation or any kind of educational training can render it. But this very department tends to divert students from, rather than attract them to, an agricultural school. The simple fact is that there is quite a limited demand for instruction in the science and art of farming. But it may be plausibly argued that the demand for such instruction will be in some measure proportionate to the thoroughness of the equipment and the utility of the course offered. Admitting this, the question is what can be done to enlarge the advantages offered by the department of agriculture in the university? He answers this question by suggesting experiments to exemplify the best methods of general farming and dairying, and that provisions be made for horticulture and fruit culture. Six years before Professor Purinton, then superintendent of agriculture, thought that the comparative failure of the department was due to the lack of funds and the "inherent unpopularity of this course of study growing out of its association with the idea of manual labor." Professor Menke, then superintendent of agriculture, thought that farmers' institutes, where the farmers could meet in an intimate way the men connected with the institution, would do more than anything else to dispel the prejudice against agricultural instruction and increase the patronage. Four of these had been held the preceding year, three of which were reported as highly successful.

In view of these facts it is not surprising that the president asked for only $800.00 for the agricultural department with an additional

amount not specified to buy Jersey cattle and that the legislature responded by giving $600.00 for the farm.

The decline in attendance continued. In the short session of 1895 there were only 23 agricultural students, and in 1895-96 only 16, all preparatory in both cases. The total attendance for the same time was for the short session 259 collegiate and 471 preparatory and for 1895-96, 196 collegiate and 355 preparatory. In 1896-97 there was one agricultural student in the college grade and none so marked in the preparatory.

By this time the "School of Agriculture" has disappeared, its place being taken by the "Department of Agriculture." This had four sub-departments, that of agriculture in charge of R. L. Bennett, horticulture in charge of J. T. Stinson, agricultural chemistry and meteorology in charge of G. L. Teller, and animal pathology and bacteriology in charge of R. R. Dinwiddie. This staff was identical with that of the experiment station. The B. S. A. degree was restored, based on a four-year course. The following year (1897-98) this degree was offered on two different courses, one based on agriculture and the other on horticulture. Instruction in the four departments named above was offered until 1900, when the last two were dropped. Agriculture was now treated as simply a special department in the university. There were courses with a little agriculture and horticulture leading to the B. S., or the B. S. A., if still more work was presented in these subjects.

When C. L. Newman became superintendent and professor of agriculture in 1897 he found the farm run down and out of repair and no funds for improvement. Fully half of it he pronounced unfit for cultivation and of little use for pasture because of the steep hills and the stony nature of the soil. However, he undertook the improvements and by 1902 had accomplished much in the way of terracing hills, removing stones, providing pastures and erecting buildings. The announcement had been made some years before that students would not be required to labor on the farm except so far as demonstration work was necessary.

The department was now taking on new life and began to attract some students. By the close of the year of 1904-05 there were ten

collegiate students taking the regular B. S. A. course, besides others electing a small amount of work, and ten sub-freshmen taking some work in agriculture. The total enrollment was 116, of whom 71 were taking horticulture. In another year the total number taking some sort of agricultural work was 200.

In 1905 Colonel W. G. Vincenheller, the director of the experiment station, went to Little Rock and laid the claims of the station before Senator W. P. Fletcher, requesting his influence for the passage of a bill giving suitable maintenance funds. Now it happened that Senator Fletcher was a progressive man, fully awake to some of the educational needs of the State, and he agreed to help the station people, if they in turn would agree to a bill providing for a wider usefulness on the part of the station. To this they readily assented and a bill was passed appropriating $35,500 for buildings and maintenance and directing that instruction be provided in "practical agriculture, horticulture, entomology, veterinary and kindred subjects."

Steps were at once taken to organize the College of agriculture and it soon made its appearance with a regular faculty composed, for the most part, of the station people. Indeed, only one member of the faculty, the professor of agriculture, was not a member of the station staff. Regular courses of study were outlined in agricultural chemistry, agronomy, animal husbandry, dairy husbandry, entomology, horticulture, and veterinary science. In the reorganization the old department of agriculture, held by Professor G. A. Cole since 1904, had been replaced by the department of agronomy. This arrangement continued until 1907, when an eighth department was added, agriculture, in charge of Professor Cole, the department of agronomy being turned over to the agriculturist of the experiment station. This, which is now called the department of agricultural education, is still the only chair not connected with the station. In 1909 an effort was made to bring about a closer relation in farm as well as in practice between the agricultural college and the station, and the general oversight of both was confided to C. F. Adams as dean and director of the College of Agriculture and Experiment Station.

Besides the collegiate course of four years leading to the degree of B. S. A., there was a short course covering two years, leading to a

certificate only, to which students were admitted at the discretion of the professor in charge of each subject for which he applied. This short course has since been reduced to a term of eight weeks each year. There was also a short winter course of two weeks intended for those already engaged in farming. The short winter course was recommended as early as 1896 by Professor Menke, but nine years passed before it was realized. He declared that the four and two year courses here, as everywhere else, were failures, but that the short course was slowly becoming successful. It is now well known that it has been used to build up the longer courses in other institutions. It is still offered at the University of Arkansas and is attracting some attention among the farmers, but no great things have as yet resulted from it.

II. Departments of Instruction.

Agricultural Education.

Ever since the founding of the university there has been at least a pretence of instruction in agriculture, though the department has had a somewhat uncertain existence. As noted elsewhere the department of chemistry carried this department for many years, the head of this department being denominated at the same time superintendent of agriculture. In 1894, when Professor Menke was superintendent, the name of W. F. Bates appears as instructor in agriculture. Apparently this is the first time when any man was supposed to devote his entire time to the subject. In 1896, for the first time, the superintendent has no other duties, the place being held at that time by R. L. Bennett. At the end of one year he was succeeded by C. L. Newman, who assumed the title professor of agriculture in 1902. In 1904 he was succeeded by G. A. Cole. The department of agriculture then disappears in name, being replaced by that of agronomy, but reappears in 1907. In February, 1908, R. J. Nelson succeeded Professor Cole as professor of agriculture and served until December, 1909, when he resigned and the department, which had been renamed the department of agricultural education in June, was left in charge of Adjunct Professor J. M. Wilson.

Down to 1884 the instruction in agriculture had not proceeded beyond a "knowledge of plants, the analysis of the soils, minerals and

a practical knowledge of chemistry." Two years later the so-called agricultural course was given first place in the catalogue, but there was nothing about any course in agriculture in the "Outline of Studies." Two years later still we learn that the superintendent gave instruction in the reclamation of land, clearing, stumping, etc.,; in the selection of farms for special purposes; rotation in crops; buildings; implements and machinery; preparation of the soil, preparation of manures and composts; improvement of lands; roots (tubers); green fodders, etc.; and agricultural chemistry.

Not until 1903 were definite courses announced and outlined as in other departments. Then a three-hour course was offered in soils and farm crops, a two-hour course in farm buildings, machinery and animals, a two-hour course in rural economy and experiments, and a four-hour course in special farming with special reference to live stock and grain. These courses remained unchanged until 1908, except that a three-hour course in irrigation and drainage was added in 1906 and a three-hour course in "advanced agriculture" in 1907. In 1908 these courses were rearranged and somewhat extended and a course in bookkeeping and farm accounts was added. In addition, courses were offered in horticulture, soils, and school gardening for the benefit of students taking the normal course. At present the department offers an elementary course in agriculture (3) and one in bookkeeping and farm accounts and rural law (1), both of which are required of freshmen. For students of collegiate grade a course in general agriculture and school gardening (3), farm mechanics and farm management (2), and rural economics (1).

As late as 1902 the superintendent of agriculture complained that no recitation room had been provided for classes in agriculture and that this and other conditions had deterred students from taking the course. The erection of the Agricultural Building in 1905 obviated this difficulty. The following year 21 students were reported. The number enrolled during the year 1908-1909 was 148.

Horticulture.

This department shows signs of waking into a separate existence in 1894, when Jerome McNeil was styled professor of horticulture. However, closer observation reveals the fact that he was also professor

of biology and geology and that this was his main business. In 1896 J. T. Stinson was designated horticulturist and was supposed to devote all his time to the subject. In 1897 the department was recognized by the board. January, 1900, Professor Stinson was succeeded by Ernest Walker. From 1905 to 1909 he was assisted by J. L. Hewitt.

Back in the old days when the superintendent of agriculture looked after everything, instruction was offered in the preparation of soils, management of plants, horticultural implements, methods of obtaining new varieties, flower and kitchen gardening, nurseries and orchards, and greenhouses. Even now the instruction is hardly more comprehensive, but is much more systematized and more intensive. The courses outlined in 1896 related to propagation of plants and vegetable gardening (3), fruit culture and landscape gardening (3), forestry and plant breeding (2). In 1903 a course on horticultural literature and special work and reports was added. At present the courses relate to plant physiology (3), fruit culture (3), horticultural structures and implements (2), plant propagation and plant growing, small fruits and vegetable gardening, special work and practice, horticultural literature, forestry (2), landscape gardening, greenhouse methods and forcing, floriculture (2), commercial pomology (2), and the evolution of cultivated plants and plant breeding.

During the year 1899-1900, 3 students were enrolled. In 1905-06 the number reached 44. At times since then it has gone above 100.

Veterinary Science.

Some instruction in this subject appears to have been offered as early as 1886, but this department first appeared in 1896 in connection with bacteriology and was then put in charge of R. R. Dinwiddie. In 1900 it disappeared from the agricultural school, but reappeared in 1905. In 1906 W. Lenton was added as adjunct professor and upon the transfer of Dr. Dinwiddie to the department of animal husbandry in 1907, he was made full professor and put in charge of the department.

At first a three-hour course was offered in anatomy and physiology of domestic animals, and the physiology of animal nutrition and reproduction, and also a three-hour course in bacteriology and hygiene

and farm and stable hygiene. Upon the reappearance of the department in 1905 a general course was offered in the essential branches of veterinary science for students in agriculture, consisting of lectures, recitations and practical exercises; also courses in anatomy, physiology, hygiene, and general veterinary pathology and in special veterinary pathology, dealing with diseases and their treatment. At present the department offers two courses, differing but slightly from the work indicated above.

Animal Husbandry.

Some work of this character seems to have been offered by Professor Menke as far back as 1888, but it was soon dropped. The department came into being in 1905 with R. W. Wade in charge. In 1907 he was succeeded by R. R. Dinwiddie, who was assisted by A. K. Short. The retirement of Dr. Dinwiddie in 1909 left Professor Short in charge of the department.

The courses offered by Professor Wade were: Judging cattle and live stock (1), study of breeds and commercial cattle (1), principles of judging and breeding farm animals (1), principles of feeding (1), judging of stock and of breeds and pedigrees (1), and feed and feeding (1). Practically the same courses are offered now.

Entomology.

The year 1905 also witnessed the creation of this department, though some instruction in entomology appears to have been offered as early as 1886. When made a separate department it was put in charge of C. F. Adams, the present incumbent. When he became director of the experiment station (1909) it became necessary to add an assistant and Paul Hayhurst was elected to this position. Courses are offered in general entomology, consisting of work on anatomy, physiology, metamorphosis, classification, and habits of insects; advanced entomology (3); systematic entomology (3); advanced economic entomology (3), insect bionomics (3), and research work.

Agricultural Chemistry.

In the early days the department of chemistry furnished whatever instruction was furnished in agricultural chemistry. In 1905 J. H. Norton took charge of the newly created department of agricultural

chemistry. In 1908 he was succeeded by W. M. Bruce, who is assisted by H. D. Young as adjunct professor.

A three-hour course is offered in soil physics and a six-hour course in agricultural chemistry.

Agronomy.

The department of agronomy makes its first appearance in 1905, when it temporarily replaces the department of agriculture, of which it really was an offshoot. It was then in charge of G. A. Cole. Two years later he reverted to agriculture for a name and C. P. Norgord was put in charge of the department of agronomy, with W. S. Jacobs as assistant. In 1908 Professor Norgord resigned and was succeeded by Martin Nelson.

The courses first offered were: Soil physics, soil management, farm crops, and thesis work. In addition to these courses two are now offered in agronomy.

Dairying.

Some sort of instruction in dairying was offered previous to 1905, but the department of dairying was created then and put in charge of V. A. Hooper. Since 1907 he has been assisted by Adjunct Professor C. H. Tourgee.

The department offers instruction in dairying (4), dairy cattle (3), the dairy herd (3), the city milk supply (2), milk testing (2), butter making (5), cheddar cheese (5), dairy manufactures (4), scoring butter and cheese (1), and investigation and thesis work.

The number of students is not large, but the present enrollment is the best in the history of the institution. In 1905-06 there were only 6.

The department pays special attention to butter and cheese making and also sells milk to the citizens of Fayetteville. As the herd was not sufficient for all purposes, the department began buying milk and cream from farmers in September, 1906, for use in butter and cheese making, as well as for student work. That month there was but one patron, and he sold not quite five dollars' worth of milk. This patron is still selling to the department and his monthly bill now runs over $125.00. During the year 1907 the department paid out to all patrons about $4,130.00; during 1908, $4,800.00; and during 1909, $8,700.00.

During the first few months after starting this work there were five patrons; now there are forty-five, and the number will probably be one hundred before the middle of the coming summer.

The department has encouraged the growth of industry by paying high prices for milk and cream from the start, in order to offset the low production per cow, which is characteristic of this State. It is now seeking to improve the herds by the use of pure-bred males and by testing these herds so that the unprofitable ones may be discarded. Development was slow at the start, but the industry is now on a safe footing and the prediction is made that eventually the dairy industry will become a close second to the fruit industry of the State.

When the new Dairy Building was ready for operation, the equipment consisted of just that which was absolutely necessary, and much of this was loaned or donated by the manufacturers. Since that time new equipment has been added as rapidly as funds would allow and now it is fairly complete. During the past summer, a refrigerator plant and new and up-to-date ripeners and coolers were installed.

The dairy herd is composed entirely of Jerseys and Jersey grades, as the department has neither the money nor land necessary for the purchase and maintenance of herds of the different dairy breeds. Accurate records have been kept of every animal in the herd, these being obtained by weighing and sampling each milking and testing these samples monthly, the results being entered in a permanent record book. There are individuals in this herd that are producing over 7,000 pounds of milk and butter-fat, equivalent to over four hundred pounds of butter per year.

Plant Pathology.

The newest creation in the line of regular instruction is the department of plant pathology, which was created in 1909 and put in charge of Professor J. L. Hewitt, who was transferred from the department of horticulture.

Farmers' Institute.

Back in the nineties an experiment was made in holding farmers' institutes as a means of arousing interest in agricultural education, but with no striking results. A few years ago the work was resumed,

and in 1909 Professor G. A. Cole was employed to take charge of this work. This department, properly speaking, should be classed as extension work. It is new, but great possibilities lie out before it.

The specialist will at once detect that some of the departments outline more instruction than they are able to give with the present force, especially when a part of the time must be devoted to research work for the station. The departments themselves recognize this fact and they do not attempt to give it all, but the work is outlined to call attention to its need and in the hope that adequate help will soon be provided.

II. The Experiment Station.

March 2, 1887, President Cleveland signed a bill hardly second in importance to the Morrill bill which was signed a quarter of a century earlier by President Lincoln. It was the Hatch* bill, which provided funds to support, and directed the organization of, research and experimental work in agriculture.

The purpose of the act was said to be "to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science." In furtherance of this end it provided for the establishment of agricultural experiment stations under the direction of the land-grant colleges and directed such stations "to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies of the same; the chemical composition of useful plants at their different states of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops, the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds, the adaptation and value of grasses and forage plants; the composition and digesti-

*Wm. H. Hatch was born in Kentucky, 1833. He practiced law in Missouri and became a circuit judge. In the Civil War he sided with the South, rising to the rank of adjutant general. After the war he served several terms in congress as a representative from Missouri. In congress he showed great interest in measures for the development of agriculture, and is known as the father of the experiment station law. He died in 1896.

Experiment Station Building.

bility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective states or territories." To secure uniformity of methods the commissioner (now secretary) of agriculture was made the head of the system. The stations were required to make reports of progress in the form of bulletins at least once every three months, and provision was made for the transmission of these bulletins by the United States mail free of charge. The act provided for an annual appropriation of $15,000 to carry out its designs. Of the first appropriation, not more than one-fifth could be used for building purposes, and of subsequent appropriations not exceeding five per cent. An act approved March 16, 1906, and known as the Adams bill, provided an additional sum of $5,000 for that year and an annual increase of $2,000 until the total reached $30,000. The amount due the station from the federal government for 1910 is $28,000.

The state has not been very liberal toward the station, though in recent years it has begun to wake up to its importance. The legislature of 1905 appropriated $35,000 for the station and the College of Agriculture, of which $17,000 was set aside for buildings. In 1907, $35,200 was appropriated and in 1909 the legislature voted $55,900, but, on account of the depleted condition of the treasury, the governor vetoed items until only $36,900 was left.

Advantage was soon taken of the provisions of the Hatch bill and the experiment station was immediately organized, February 17, 1888. A brick building was erected at a cost of $4,000, and it was supplied with apparatus and material at an additional cost of $4,100, all of which was paid for out of federal funds, though the law said that not more than one-fifth of the first appropriation could be used for building purposes. Branch stations were also established at Jonesboro, Pine Bluff, and Texarkana. The last has been discontinued and the second has been moved to Newport.

The first staff was as follows:

A. E. Menke	Director.
William Trelease	Consulting Botanist.
S. S. Twombly	Chemist and Vice-Director.
F. W. Simonds	Biologist.
S. H. Crossman	Entomologist.
C. W. Woodworth*	Entomologist.
E. H. Richman	Horticulturist.
R. R. Dinwiddie	Veterinarian.
C. B. Collingwood	Chemist.
G. A. Humphrey	Assistant Chemist.
F. Cory	Assistant at Pine Bluff.
R. L. Munn	Assistant at Jonesboro.
J. K. Fitzgerald	Assistant at Texarkana.

*Vice S. H. Crossman, deceased.

The experiment station has always been more or less intimately connected with the department of agriculture. Of the twelve men on the first staff, only three were on the university teaching force. Beginning with March, 1891, the staff was entirely distinct from the teaching force of the university. However, in more recent years the staff has been almost identical with that of the College of Agriculture.

One of the greatest evils against which the station has had to contend is the frequent changes in the staff. This has been due to two causes, insufficient salaries and insecurity of tenure. Only one man, Dr. R. R. Dinwiddie, has been with the station ever since its organization. Many have remained only one year and others two and three years. As experiments frequently must extend over a series of years before any satisfactory results can be obtained, these frequent changes have often caused delays and sometimes serious losses. A new man can not—sometimes will not—always take up where his predecessor left off. He has his own methods and wishes to follow them, or it may be, wishes to continue experiments begun elsewhere. These evils have frequently been pointed out. In 1894 the board of trustees elected the staff for four years, but rescinded the rule at the end of that period and did not return to it for several years. However, security of tenure is not sufficient to hold men. The station is constantly losing men who are tempted away by higher salaries.

In compliance with the law the station early began the issuance of bulletins. In all it has issued one hundred and four and also annual reports.

Most of the experiments have been with crops or animals already well known in the State, but a few have had in view the introduction of something new. Naturally, cotton was one of the first things to receive attention. As the main station is out of the cotton belt, the work had to be carried on at a branch station and the one at Pine Bluff was selected for this. In 1888 work was begun on soil tests, fertilizers and methods of cultivation and the results were published in 1892. Bulletins were also issued in 1893, 1894, and 1897 dealing with the various questions of cotton culture, the last dealing especially with the best methods of restoring worn-out cotton lands. Since 1905 experiments have been carried on in variety tests and breeding work.

While Arkansas is not a great wheat state, the cereal is grown here in considerable quantities. Experiments on wheat growing were begun in 1887 for the purpose of determining the best method of preparing the soil and planting the seed, the best varieties for this section and the most profitable fertilizers. The work was carried on at Newport and was concluded and reported upon in 1894. The chemist then began a series of experiments on the chemistry of wheat which he continued for four years. An attempt was made in 1897 to discover the best methods of increasing the yield without increasing the cost, the results of which were published in 1900. This is the last published report on wheat, but studies are now being conducted in breeding, variety tests, cultivation, rates of seeding, and the effects of soils on yield and quantity.

Corn is a common crop in Arkansas and certain parts of the State probably are as well adapted to this cereal as any part of the United States. However, experiments on corn were not begun until 1892. The first experiments dealt with fodder, its composition, the best methods of securing it and its effects on corn. Tests were next made to determine the yield from the same variety grown in different latitudes. Seven varieties were collected from about twenty different states for this work. The station is now conducting experiments in

breeding, variety tests (seventy varieties being used), methods of distribution, cultivation, vitality of seed, and effects of crossing.

Of all the experiments, one of the most noteworthy in point of results was that on rice. Previous to 1902 the plant was practically unknown in Arkansas. One or two farmers had attempted to grow it, but the results were not altogether encouraging. In 1902 the station began an experiment in coöperation with a farmer near Lonoke which clearly demonstrated that rice could be grown there under proper conditions. In 1903 the station coöperated with the department of irrigation and drainage, studying the questions of water supply. In 1905 the matter of rice growing was again taken up, the plant was enlarged, but really satisfactory results were not obtained until the following year. However, previous attempts had demonstrated the possibilities of the industry and several farmers were growing rice successfully in 1904. When the results of the experiments were published in 1906 the cultivation began to spread rapidly. In 1909 the production of rice in Arkansas amounted to over 1,000,000 bushels.

A little has been done in experimentation on fruits, though not as much as might reasonably have been expected since the station is located in the heart of one of the finest fruit belts in the United States. At first the principal lines of study were the care of the apple, such as treatment for insects and plant diseases. In 1904 the rejuvenation of an old orchard was undertaken with results that attracted considerable attention. Bulletins have also been published on the peach, strawberries, and the grape. The peach and strawberry industries have grown to large proportions in the State, but the vineyard is yet to be developed. Several bulletins dealing with truck farming have been issued.

In the matter of live stock the station has not done a great deal for the improvement of the breeds, but has been active for the prevention of diseases, especially for the eradication of the cattle tick.

The following is a complete list of the bulletins issued to the close of 1909:

Bulletin 1. Cultivation of Cotton and Corn.—A. E. Menke.
Bulletin 2. Diseases of Animals.
Bulletin 3. Remedies for Peach Borer and Codling Moth.—S. H. Crossman.
Bulletin 4. Commercial Fertilizers.

Bulletin 5. Dehorning.—R. R. Dinwiddie, S. S. Twombly, and C. B. Collingwood.
Bulletin 6. Experiments with Wheat.
Bulletin 7. Tests of Varieties of Grapes and Strawberries.

Annual Report—First Annual Report, 1888.

Bulletin 8. Spaying of Cattle.
Bulletin 9. Cotton-seed Hulls for Fattening.
Bulletin 10. Insects and Insecticides; Chemical Fertilizers.—C. W. Woodworth.
Bulletin 11. Strawberries and Cereals.

Annual Report.—Second Annual Report, 1889.

Bulletin 12. Influence of Spaying on Milk Production; Milk Analysis.
Bulletin 13. Entomology.—C. W. Woodworth; Test of Varieties of Strawberries.—J. McNeill
Bulletin 14. The Effects of the Arsenites upon the Plants.—C. W. Woodworth.
Bulletin 15. New Insecticides for the Cotton Worm.—G. C. Davis.

Annual Report.—Third Annual Report, 1890.

Bulletin 16. Nature and Treatment of a Prevalent Skin Disease of Young Cattle—Ringworm.—R. R. Dinwiddie.
Bulletin 17. Test of Varieties of Grapes, Strawberries, Raspberries, and Plums.—J. F. McKay.

Annual Report—Fourth Annual Report, 1891.

Bulletin 18. Some Cotton Experiments at Newport.—R. L. Bennett.
Bulletin 19. Manures and Some Principles in Farm Manuring.—G. L. Teller.
Bulletin 20. Animal Parasitism; Some Texas Fever Experiments.—R. R. Dinwiddie.
Bulletin 21. Grapes: Some Insect and Fungus Diseases and their Remedies; Spraying Apparatus; Apples and Grapes in Arkansas.—J. T. Stinson.
Bulletin 22. Sorghum and Sugar-cane Culture; Syrup and Sugar Making on Small Farms; Some Field Experiments with Cantaloupes and Corn.—C. L. Newman.

Annual Report.—Fifth Annual Report, 1892.

Bulletin 23. Cotton Experiments at Newport, 1892.—R. L. Bennett and G. B. Irby.
Bulletin 24. Fodder.—G. L. Teller.
Bulletin 25. Unsound Corn and Forage as a Cause of Disease in Live Stock; Colics in Horses and Mules; Some Further Experiments with Cattle; Texas Fever.—R. R. Dinwiddie.

Annual Report.—Sixth Annual Report, 1893.

Bulletin 26. Spraying Apple Trees; Spraying for Apple Scab and Bitter Rot; Prevalence in the State of Apple Scab and Bitter Rot; Varieties of Apples in the State Reported as Surest Bearers; Some Apples Adapted to all Sections of the State; Arkansas Seedling Apples.—J. T. Stinson.

Bulletin 27. Late Crops for Overflow Lands; Corn; Varieties for all Sections of the State; Corn Culture; Rotation of Crops; Cotton; Egyptian Varieties; Cotton Culture; Stack Frame for Curing and Storing Cowpea Hay; Cowpea Hay; Forage Plants; Oats for Hay.—R. L. Bennett and G. B. Irby.

Bulletin 28. Rye for Green Winter Feeding; Fertilizer Experiments with Rye; Onions from Seed; Salsify, or Oyster Plant; Fall-raised Irish Potatoes; Preparation of Soil for Cotton; Bermuda Grass; Pocket Gopher; Moles.—C. L. Newman.

Bulletin 29. Wheat Experiments on Sandy Loam Soil at Newport Substation; Some Grass Experiments on Clay Loam Soil at Fayetteville.—R. L. Bennett and G. B. Irby.

Bulletin 30. Feeding Standards; Some Arkansas Stock Foods; Compounding Rations.—G. L. Teller.

Bulletin 31. Fattening Mature Steers on Cotton Seed and Cowpea Hay; Cowpeas; Sweet Potatoes; Peanuts; Cotton Varieties; Minor Miscellaneous Subjects.—R. L. Bennett and G. B. Irby.

Bulletin 32. Protection of Soil from Surface Washing; Hillside Ditches; Terraces; Drainage of Wet Lands; Indications of the Need of Drainage; Open Ditches; Underdrains.—C. L. Newman.

Annual Report.—Seventh Annual Report, 1894.

Bulletin 33. Insects Injurious to Fruits and Vegetables and Remedies for Destroying Them.—J. T. Stinson.

Bulletin 34. Vegetables; Varieties, Culture, and Fertilization; Sundry Experiments.—C. L. Newman.

Bulletin 35. Verminous Bronchitis; Parturient Apoplexy of Cows; Hog Cholera and Other Swine Diseases; Tuberculosis of Cattle; Glanders in Horses and Mules.—R. R. Dinwiddie.

Bulletin 36. Grasses and Clovers.—R. L. Bennett.

Bulletin 37. Syrups and Molasses.—G. L. Teller and J. F. Moore.

Annual Report.—Eighth Annual Report, 1895.

Bulletin 38. Irish Potatoes.—C. L. Newman.

Bulletin 39. Spraying Fruits; Strawberries, Grapes.—J. T. Stinson.

Bulletin 40. On the Toxic Properties of Molds.—R. R. Dinwiddie; Field Investigations of Various Stock Diseases.—H. V. Goode.
Bulletin 41. Pork Production on Crops Gathered by Hogs; A Succession of Crops for Hogs.—R. L. Bennett.
Bulletin 42. Concerning Wheat and its Mill Products.—G. L. Teller.
Bulletin 43. Report of the Horticulturist, 1896.—J. T. Stinson.

Annual Report.—Ninth Annual Report, 1896.

Bulletin 44. Vegetable Gardening.—C. L. Newman.
Bulletin 45. Milk: Its Decomposition and Preservation.—R. R. Dinwiddie.
Bulletin 46. Experiments with Manures and Rotation for Improving Worn Cotton Soils; Experiments on Beef and Pork Production in Connection Therewith.—R. L. Bennett.
Bulletin 47. Concerning Fertilizers and Manures; After-effect of Manures.—G. L. Teller.
Bulletin 48. Strawberries.—J. T. Stinson.

Annual Report.—Tenth Annual Report, 1897.

Bulletin 49. Preliminary Report on Arkansas Seedling Apples.—J. T. Stinson.
Bulletin 50. Some Irish Potato Experiments.—C. L. Newman.
Bulletin 51. Methods of Combating Communicable Diseases of Farm Animals.—R. R. Dinwiddie.
Bulletin 52. Feeding Value to Steers of Cotton Seed, Ground Cotton Seed, Cotton Meal, and Hulls; Effect of Temperature.—R. L. Bennett.
Bulletin 53. A Report of Progress of Investigations in the Chemistry of Wheat.—G. L. Teller.
Bulletin 54. Fattening Value of Certain Foods Gathered by Pigs.—R. L. Bennett.
Bulletin 55. Orchard Cultivation.—J. T. Stinson.

Annual Report.—Eleventh Annual Report, 1898.

Bulletin 56. Tomatoes, Cabbage, and Onions.—C. L. Newman.
Bulletin 57. The Relative Virulence for the Domestic Animals of Human and Bovine Tubercle; Bibliographical Review; Experimental Researches.—R. R. Dinwiddie.
Bulletin 58. An Experiment in Grazing a Corn and Cowpea Field with Steers; Experiments with Peanuts, Legume Manuring, Cotton Meal, Whole and Crushed Cotton Seed Manuring, and Varieties of Cotton.—R. L. Bennett.
Bulletin 59. The Comparative Yield of Corn from Seed of the Same Variety Grown in Different Latitudes.—C. L. Newman.
Bulletin 60. Second Report on Arkansas Seedling Apples.—J. T. Stinson.

Annual Report.—Twelfth Annual Report, 1899.

Bulletin 61. Annual Plants for Summer Hay and Pasture; for Winter Hay and Pasture, and for Forage of Coarse Fodder; Permanent Plants for Meadow and Pasture; Special Crops for Pig Grazing.—R. L. Bennett.
Bulletin 62. Wheat Experiments.—C. L. Newman.
Bulletin 63. The Relative Susceptibility of the Domestic Animals to the Contagia of Human and Bovine Tuberculosis.—R. R. Dinwiddie.
Bulletin 64. Notes on Celery.—E. Walker.
Bulletin 65. Pig-Feeding Experiments.—R. L. Bennett.

Annual Report.—Thirteenth Annual Report, 1900.

Bulletin 66. Oat Experiments.—C. L. Newman.
Bulletin 67. Investigations of Swine Diseases in Arkansas.—R. R. Dinwiddie.
Bulletin 68. Soil Improvement and Forage Experiments.—R. L. Bennett.
Bulletin 69. Some Muskmelon Experiments.—E. Walker.
Bulletin 70. Cowpea Experiments.—C. L. Newman.

Annual Report.—Fourteenth Annual Report, 1901.

Bulletin 71. Why Apple Trees Fail.—E. Walker.
Bulletin 72. Sweet Potato Experiments.—C. L. Newman.
Bulletin 73. Pork Production Experiments and Hog Ranching.—R. L. Bennett.
Bulletin 74. The Phosphate Rocks of Arkansas.—J. C. Branner and J. F. Newsom.
Bulletin 75. Alfalfa—R. L. Bennett.
Bulletin 76. Pig Feeding Experiments with Cotton-seed Meal.—R. R. Dinwiddie.

Annual Report.—Fifteenth Annual Report, 1902.

Bulletin 77. Cowpea Experiments.—C. L. Newman.
Bulletin 78. Experiments with Edible Oils.—J. F. Moore.
Bulletin 79. Peach Growing in Arkansas.—E. Walker.

Annual Report.—Sixteenth Annual Report, 1903.

Bulletin 80. Cowpea Hay.—C. L. Newman.
Bulletin 81. Fertilizers.—A. M. Muckenfuss.
Bulletin 82. Live-stock Sanitation in Arkansas.—R. R. Dinwiddie.
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Bulletin 85. Cotton-food Products in Hog Feeding.—R. R. Dinwiddie.
Bulletin 86. Asparagus and Salt; Asparagus Growing in Arkansas; Rhubarb in Arkansas.—E. Walker; Fertilizers Registered for Sale in Arkansas during 1905.—A. M. Muckenfuss.
Bulletin 87. Glanders of Horses.—R. R. Dinwiddie.
Bulletin 88. Food Adulteration in Arkansas.—J. H. Norton.
Bulletin 89. Rice Growing in Arkansas.—W. G. Vincenheller.
Bulletin 90. The Cattle Tick in Washington and Benton Counties.—W. G. Vincenheller.
Bulletin 91. Suggestions upon the Care of Apple Orchards.—E. Walker.

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Bulletin 92. Some Insects of Orchard and Other Fruits.—C. F. Adams.
Bulletin 93. Cattle Tick Eradication in Northwest Arkansas.—W. G. Vincenheller.
Bulletin 94. Rice Culture.—R. J. Nelson.
Bulletin 95. Notes on Spraying and Suggestions for Combating Crop Pests.—E. Walker.
Bulletin 96. Anthrax in Arkansas; Charbon Outbreaks in 1905-1906; General Description; Preventive Measures; Anthrax Vaccination and its Results; Commercial Vaccines.—R. R. Dinwiddie.
Bulletin 97. Anthrax and Anthrax Vaccines (Technical).—R. R. Dinwiddie.

Annual Report.—Twentieth Annual Report, 1907.

Bulletin 98. Rice.—R. J. Nelson.
Bulletin 99. Farm Poultry.—W. S. Jacobs.
Bulletin 100. Meterological Summary.—J. H. Norton.
Bulletin 101. Notes on the Cattle Tick and Tick Fever of Cattle; Tick Eradication in Arkansas in 1907.—R. R. Dinwiddie and W. Lenton.
Bulletin 102. The San Jose Scale in Arkansas.—C. F. Adams.

Annual Report.—Twenty-first Annual Report, 1908.

Bulletin 103. The Deposition of Fat and Lean in Hogs. A Comparison of the Capability of Hogs of the Lard and Bacon Type in the Utilization of Wide and Narrow Rations.—R. R. Dinwiddie and A. K. Short.
Bulletin 104. Farm Drainage.—C. P. Norgord.
Circular 1. Corn Judging: A Circular of Information for the Members of the Boys' Corn Clubs of the State of Arkansas.—R. J. Nelson.

Annual Report.—Twenty-second Annual Report, 1909.

Bulletin 105. Studies on the Bacteriology of Infectious Diseases of Swine.—R. R. Dinwiddie and J. F. Stanford.
Circular 2. Farmers' Hand Book on Swine; A Collection of Data pertaining to the Feeding, Care and Management of Swine.——A. K. Short.

CHAPTER XVII.

THE PROFESSIONAL SCHOOLS.

I. Medical Department.

June 16, 1879, Chairman Gregg of the committee on medical college department of university located at Little Rock presented the following report: "That a medical department be established at Little Rock; that P. O. Hooper, M. D., be and act as principal, that he, with advice and consent of state medical association, appoint assistants and lecturers." Two days later this was adopted.

A modest announcement was issued in the summer of 1879 stating that lectures would begin October 7. No "magnificent and imposing structure" as the medical department building could be presented to "inspire wonder and admiration in students," but a comfortable building had been secured and moderate hospital facilities were available. Fifteen names were presented in the list of faculty and instructors, among them such well-known names as those of Doctors P. O. Hooper, James S. Dibrell and James H. Southall. Instruction was based in what was called a "voluntary graded course" of three years.

During the first year twenty-two students matriculated, one of whom was graduated. At their June meeting in 1880 the board ordered that the word "Industrial" be inserted in the title of the medical department to show that it was a department of the Arkansas Industrial University. Yet they had done nothing for it except pass resolutions. The medical faculty had purchased and fitted up a building at their own expense. The board now resolved to ask the legislature to provide for the appointment of "two scientific physicians, contiguous to the medical department," who, with the dean, should constitute an executive committee to look after the medical department. The dean was to be a member of the board.

The legislature of 1881 confirmed the action of the board in establishing the medical department and carried out the recommenda-

tion in regard to the executive committee except that the dean was not made a member of the board.

The state medical society seems to have taken an active interest in the school. A board of visitors representing this society was present at the examination of candidates for degrees. In 1885 this committee gave its unqualified endorsement to the work of the school. The United States commissioner of education also called attention to the small number of graduates compared with the number of matriculates—eight out of 41 in 1886—as evidence of thorough work.

Soon after the department was founded it secured a "very commodious edifice," three stories high, on Second Street, between Main and Louisiana. In 1891 it moved into a "very fine, imposing edifice, three stories in height," on Second and Sherman Streets. By this time the hospital facilities had increased so as to add materially to the facilities for instruction, the Little Rock infirmary and the county hospital both being available. This same year the department was further strengthened by the Isaac Folsom Clinic, endowed with $20,000.

Down to 1892 students were required to attend lectures for only two years. After July, 1892, in accordance with the requirements of the American Medical Association, all students who had not attended a full course of lectures before that date must attend three full courses of six months each in three separate years. Three years later, when the association required four years, the medical department did likewise. They have also followed the association in its matter of requirements for admission.

The first year (1879-80) the instructional force numbered 16, the students 22. In 1889-1890 there was the same number of instructors, but the enrollment of students had gone to 76. At the end of another ten years there was still the same number of instructors and the name of Dr. P. O. Hooper still headed the list, though his position had been that of an emeritus for ten years. The students now numbered 171.

II. Law Department.

In March, 1890, on motion of Trustee Mitchell, a law department was created at Fayetteville with F. M. Goar as dean, and four other

professors. A hall in the university building was to be set apart for the use of this faculty. A course of study was outlined in the catalogue and it was announced that the spring term would run from March 2 to June 29, the fall term from September 2 to December 24. A special term of two months during July and August, 1891, was announced for the benefit of any who were not able to enter the spring term. In December the board asked the legislature to buy books for the law department. But the department failed to materialize. The following year the board declared that they acted in good faith in providing for it and commended the zeal of Dean Goar in attempting to organize it, but declared it inexpedient to advertise such an institution in the catalogue unless teaching was actually going on.

At the meeting of the board in January, 1893, Trustee Mitchell again brought up the matter of a law department by a resolution to adopt the law school at Little Rock as the law department of the university. It was stipulated that this department should be on the same basis as the medical department and that the university board should incur no expense for its maintenance.

As thus organized the school opened in October, 1893, with Frank M. Goar as dean and four other attorneys as professors. The course was divided into two years, but if one had already read law, or preferred trying to complete the work in one year, he was admitted to the final examinations and, on passing, was given the LL. B. The department was supported by tuition fees alone. The sessions were held at night in the capitol building, where students were given access to the supreme court library. The enrollment the first year was 36. By 1909 the number had risen to 69.

The method of instruction is by recitations on previously assigned lessons, supplemented by special lectures. Students are also required to prepare legal papers in the form of briefs. The course of study covers two years and leads to the degree of bachelor of laws. By act of the legislature all graduates of this school are admitted to practice in the supreme court and all inferior courts of the state without examination.

Inspection.

CHAPTER XVIII.

THE BRANCH NORMAL COLLEGE.

I. Foundation.

As the university was founded under the reconstruction règime, and as a negro was president of the board for a time, it was not unnatural that the question of admitting negroes should have been raised. Even before the university was opened it was brought to an issue in a resolution introduced by Trustee Millen directing the president to admit students of both races. Instead of this, however, the board adopted a substitute resolution offered by Trustee Bennett leaving the matter to be settled "as the sound discretion of the executive committee may dictate." April 14, 1873, the executive committee reported that their "sound discretion" had thrown the institution open to all "without regard to race, sex, or sect."

However, the agitation for a separate institution had already been started. March 5, 1873, Professor Martin, of Pine Bluff, and a Mrs. Clark, of Phillipps County, were invited to appear before the board and state their claims and views in regard to the creation of additional normal schools for the training of colored teachers, the schools to be located in districts easily accessible to the colored population. As soon as their views were known Trustee Bennett introduced a resolution for a committee of three to devise some practicable method whereby the legislature might be induced to make some suitable appropriation for the purpose of establishing a normal school for the education and training of colored persons as teachers. This resolution was adopted and Trustees Bennett, Searle and Clayton were appointed on the committee.

A few days later Mr. Clayton, who was also a member of the senate, introduced a bill to carry out the purpose of the resolution and this bill became a law April 25, 1873. One section read:

"The board of trustees of the Arkansas Industrial University are hereby authorized to take into consideration the interests of the state.

and especially the convenience and well-being of the poorer classes, and to select a suitable site and locate thereon a branch normal college, which location, owing to the principal college being located in the northwestern portion of the state, shall be made southeast or east or south of the county of Pulaski."

The sum of $25,000 in state scrip was appropriated to carry out the purpose of the law. The act provided that the branch normal should be under the control of the university board. While negroes are not mentioned in the act it was understood that the "poorer classes" referred to them.

At the July meeting of the board Messrs. Bennett, Clayton and Millen were appointed a committee to seek financial aid and bids from towns for the location of the institution, but, owing to the money panic and the low price of scrip, which ranged at times as low as twenty-five cents, they decided to defer the matter of location. At the July meeting in 1874, the board, which had been revolutionized in consequence of political changes in the state, again took up the matter and a new committee, Messrs. Jones, Johnson and Thompson, was appointed. However, at the end of another year this committee had done nothing toward carrying the law into effect. Governor Garland then replaced Mr. Johnson on the committee and became its chairman. Some time in July, 1875, the committee employed Professor J. C. Corbin and directed him to go to Pine Bluff for the purpose of investigating the desirability of that place as a location for the proposed normal. He returned with a favorable report and the committee closed a contract with him to organize and take charge of the school for one year at a salary of one thousand dollars.

Armed with a brief letter from Governor Garland which was at the same time his letter of credit, his certificate of authority, and his recommendation, Professor Corbin returned to Pine Bluff and proceeded to organize his school. He rented from Colonel M. L. Bell a building on the corner of Lindsay and Sevier streets at $300 per year, and school furniture was ordered from Chicago. Sickness caused delay in repairing the building so as to get it in readiness and the boat which was bringing the furniture up the Arkansas River sank,

but the school was finally opened September 27, 1875, with seven students in attendance. Three of these came from Jefferson and four from Drew counties.

The total expense of maintaining the school the first year was a little over fifteen hundred dollars. In June, 1876, the committee on the branch normal reported that none of the state scrip had been sold and that there was then in the state treasury to the credit of the normal $21,011.60, which had been drawing interest at five per cent. since 1872. The committee never visited the branch normal in a body, though Trustee Thompson and Professor N. P. Gates, of the normal department at the university, did go there and reported the management satisfactory. Practically all responsibility for the management was thus thrown upon Professor Corbin. The expense of maintenance did not vary much before the close of the decade. In June, 1880, the balance still to the credit of the institution was $13,711.60, and it owned property (furniture mostly) valued at $508.20.

At the June meeting in 1880 the board decided, on motion of Trustee Thompson, to appropriate $3,000 of the normal's funds to buy land in or near Pine Bluff, and Governor Miller, General Royston and W. E. Thompson were appointed a committee to carry out this resolution and to erect a suitable building. This committee went to Pine Bluff and bought twenty acres for $700. An appeal was then made to the legislature for building funds and that body appropriated $10,000 for this purpose in 1881. The same committee, except that Governor Churchill had replaced Governor Miller, then contracted with Harding and Bailey, of Little Rock, to erect a two-story brick building with four rooms below and an assembly hall above at a cost of $9,930. After this was paid for and the running expenses of the session 1881-82 had been met the normal still had to its credit $9,706.35 in state scrip and $3,224.68 in currency. The committee was then authorized to erect two cottages on the normal grounds at a cost of not over $800 each, one to be rented to the principal and the other to a responsible boarding-house keeper. At the following meeting of the board (1883) they reported nothing done and asked that the appropriation be increased to $2,500. This was done with instructions to proceed at once with the work, but it seems never to have been done.

In 1887 the legislature appropriated $5,000 for a girls' dormitory and with this sum there was erected a building accommodating about thirty-five girls. Two years later the sum of $1,000 was appropriated to furnish the dormitory. In 1891 $5,000 was appropriated for the erection of a building for the agricultural and mechanical department and in 1899, $600 for an office building. The growth of the school rendered necessary a larger building and the legislature of 1901 gave $5,000 for an annex to the main building, and at the same time $800 for enlargement of the shop building. Another addition was deemed necessary in 1907 and $6,000 was voted.

The establishment of the industrial department, which had often been recommended by Professor Corbin, followed immediately upon the erection of the building for the shops in 1891. Provision was made for a wood shop, a machine shop, a foundry and a forge. For the first year this was in charge of George P. Eustace, who had done some work at the university. He was succeeded by W. S. Harris, of Virginia, who is still there.

In 1894 out of 241 students enrolled, 42 were taking work in this department. It has continued to grow in importance and in the attendance of students. The work turned out by the students has been a credit to the institution.

Scarcely had this department been established when Professor Corbin began to make recommendations for an industrial department for girls. This, he declared, was necessary to keep them busy while the boys with whom they recited in other subjects were at work in the shops. After making several ineffectual appeals Professor Corbin at last in 1897 induced the board to respond. They elected his daughter "sewing and industrial teacher for females" and authorized the purchase of sewing machines. In some way typewriting was worked in also and at the end of the year it was reported that several of the girls had become so proficient that they were working for several lawyers in the city. With this accomplished Professor Corbin seems to have rested satisfied, for we find him making no further recommendations for the enlargement of the school's field of activity, except by an increase in the teaching force and an enlargement of the departments already in existence.

Professor Isaac Fisher, who became principal in 1902, had been educated at Tuskegee and was thoroughly imbued with the Tuskegee idea. He soon began to unfold plans for greater things and, calling attention to the fact that the branch normal college was the only state school in the South for negroes which did not provide instruction in agriculture, recommended the establishment of the following: An agricultural department, a dairy department, a laundry department, a shoe-making department, a harness-making department, a wheelwright department, a department of domestic economy, a brick-making department, a printing plant, and a department of music. The legislative committee of 1903 had recommended the first of these proposed innovations. In a report to the legislature it said:

> The field or farm industries are neglected altogether. There are some twenty acres of ground where the buildings are situated and its proximity to market would justify its appropriation to industrial uses, especially such as market gardening. This branch of industry, with a few hundred dollars expended to organize it, can certainly be made self-sustaining and at the same time teach husbandry to the students, a vocation for which they are more properly fitted.
>
> The ground needs drainage and fertilization, and, when this is done, the water supply is such that irrigation can be applied and a crop failure absolutely avoided. We especially recommend that the trustees of the Arkansas Industrial University be directed to take such steps as will produce this result.

II. Maintenance.

Down to 1887 the institution seems to have been supported entirely by the scrip fund together with the small fees charged students. The same rule governing the matter of beneficiary students applied here as at the university. At first tuition was free to all signing an agreement to teach two years in the public schools of the State. A payment of $5.00 as a matriculation fee sufficed for four years' attendance in the case of beneficiaries. These fees, together with tuition collected from non-beneficiaries, amounted to only $111.60 in 1877-8. The following year this sum fell to $17.50. However, it is probable that a good many who were not beneficiaries did not pay then as this was true later. The board called attention to this in 1883 and directed that a fee of one dollar a month be collected from all non-beneficiary students. The result was the collection of

$328.85 the following year. The collection of matriculation and tuition fees seems to have been somewhat rigidly enforced. In 1893-4 four students were suspended for non-payment, but there was only ten dollars uncollected. This system was said by the principal to work a hardship on some worthy students who were kept away by their inability to pay the fees. This was given as one explanation of the small enrollment, 183, in 1893-4. A few years before (1890-1) it had reached 218. Though modest, the fees were declared to be in excess of those charged by any of the denominational schools in the State. This was thought not to be in harmony with the act which founded the school for the "poorer classes." The system remains unchanged.

Since 1887 the legislature has provided maintenance funds out of the state treasury or out of the Morrill fund. The following table shows the sums appropriated out of the state treasury, in addition to the sums already mentioned for buildings, and also the amounts received each year ending June 30 from the Morrill fund:

	State	Morrill
1887	$ 6,590 00	.....
1889	8,500 00	.....
1890	.....	$4 090 89
1891	8,300 00	4,363 63
1892	.....	4,636 36
1893	7,700 00	4,909 08
1894	.....	5,181 81
1895	8,900 00	5,454 54
1896	.....	5,727 27
1897	10,250 00	6 000 00
1898	.....	6,545 43
1899	9,250 00	6,818 16
1900	.....	6,818 16
1901	2,579 00	6,818 16
1902	.....	6,818 16
1903	11,750 00	6,818 16
1904	.....	6,818 16
1905	11,250 00	6,818 16
1906	.....	6,818 16
1907	14.500 00	6,818 16
1908	.....	6,818 16
1909	11,600 00	6,818 16

The legislature of 1909 voted $13,500, but Governor Donaghey vetoed several items because of a deficiency in the state's revenues.

The state appropriations were made mainly for the payment of salaries. For example, in 1899 the total was $10,250, of which $8,000 was set aside for this purpose. As the Morrill fund could be used only for the payment of salaries a surplus gradually accumulated which amounted to $20,758.47 on June 1, 1899. Soon after this Hon. W. T. Harris, United States Commissioner of Education, notified the board that the Morrill fund could not be allowed to accumulate, but must be spent for the year for which appropriated. However, he further stated that a reasonable time would be allowed the board to dissipate the surplus already accumulated. At a called meeting in November, 1899, the board proceeded to comply with this suggestion by ordering all salaries of branch normal teachers to be paid in future out of the Morrill fund, and for this year that the salary of the president of the university should be paid out of this fund, if it could be done "without violating the law." The professor of mechanical engineering also was being paid out of normal funds. The board further authorized the purchase of two typewriters ($150) and three sewing machines ($150) out of the Morrill fund. June 12, 1902, the treasurer of the branch normal reported that the surplus had been reduced to $647.54.

This explains the small appropriation made by the legislature in 1901. The board had asked for only $2,750. This appears to have been a shortsighted policy on the part of the board and the legislature. The small biennial appropriations being made by the State might have been continued and diverted to the development of an agricultural and other departments while the Morrill funds were sufficient for the payment of salaries.

III. Teaching Force.

For several years Professor Corbin seems to have done all the teaching except such as was done by student assistants. In 1882, when the enrollment had reached 145, the committee on the branch normal recommended an assistant teacher at $40 per month, but the board took no action in the matter until the following year, when they authorized the employment of an assistant at $30 per month, the

University Shops.

salary to be paid out of the tuition fees of one dollar a month which they ordered collected from all non-beneficiary students.

Ten years later the teaching force had grown to six in number. The board then instructed them to organize as a faculty, which they did by the election of Professor J. C. Corbin chairman and W. S. Harris secretary. The faculty was composed of five members. The third assistant, who was a male, was included, while the second assistant, a female, was not.

In 1902 Isaac Fisher succeeded J. C. Corbin as principal. As at present constituted, the teaching force numbers ten. Of these two devote their entire time to the mechanic arts department, one all of her time to dressmaking, one a part of her time to freehand drawing, and all the rest their whole time to the arts and sciences and normal work. This does not include the professor of mechanical engineering at the university who, for several years, has been catalogued as superintendent of mechanic arts and is paid out of branch normal funds.

Under a resolution passed in 1903 all teachers and other employes of the branch normal were placed under the control of the local trustee with the stipulation that his dismissal should be final. Down to 1907 the tenure of all was for one year. Beginning with 1907 the principal was elected for a term of two years.

IV. Requirements for Admission.

As already stated the branch normal was opened September 27, 1875, with seven students in attendance. Professor Corbin believed that there were several explanations of this small number. One was that a report had been industriously circulated to the effect that heavy fees would be charged, five dollars per month. Another report declared that the school was only a bit of political trickery. But the most fundamental reason was the difficulty in finding students prepared to meet the entrance requirements.

While the reconstructionists in Arkansas were not so thoroughly imbued with the idea of equality as to decree mixed schools, they some times manifested a certain striving after it in form, if not in effect. This crops out in the act founding the branch normal in such a way that it looks almost as if the framers of the act intended to

make it impossible for negroes to receive any benefit from the institution. The act provided that it should be governed by the same rules and regulations as the principal college. The board were required to furnish the branch normal with professors and teachers equal in number, attainments, and other desirable qualifications to those furnished in the normal department of the university. Students were to be admitted in like numbers and with like qualifications as in the normal, were to pursue the same courses of study in the same text-books and, upon graduation, were to receive like honors and degrees.

Presumably by "principal college" the normal department at Fayetteville was meant. The entrance requirements to this were "a satisfactory examination in the common English branches." This is somewhat indefinite, but we know that after admission to the preparatory normal class the student devoted himself to arithmetic, grammar, geography, reading, algebra, drawing, Latin, and history. With such requirements the wonder is that seven students were found in two counties who were able to enter. Had the requirements been rigidly enforced even these probably would have been excluded. We are told that the acquirements of those who applied for admission were of the most heterogeneous character: "One could read very well, but could not write a word legibly. Another could cipher through proportion, but could not read three consecutive sentences in such a way as to convey any idea of their meaning." By relaxing the requirements Professor Corbin was able to get together twenty-seven students before the end of the calendar year. It is impossible to trace the history of the requirements for admission. In 1893 we learn that for several years the standard of admission had been ability to read the fourth reader, and a knowledge of the fundamental rules of arithmetic, penmanship, and geography. If the criticism of the legislative committee to the effect that the "foundation of primary training" was not well laid was well founded, it may be that even these requirements were not rigidly enforced. The principal seemed to think that lower work ought to be given, but the teaching force was not sufficient to handle it, nor had the board authorized it.

At present the completion of the fifth grade in the public schools entitles one to enter the preparatory department, where he must spend two years for the completion of the work. The statement of the

requirements for admission to the normal department is somewhat indefinite—"the equivalent of seventy-two weeks of two and one-half hours per week, in arithmetic, English grammar, United States history and geography; thirty-six weeks, of two and one-half hours per week, in free hand drawing and twelve weeks in general history. The candidate for the B. A. must offer, in addition to the foregoing, "satisfactory work in English composition, physical geography, algebra, geometry, and one Latin author."

V. Courses of Study.

An examination of the course of study prescribed in 1879-80 reveals the fact that the law was being followed to the letter in that respect, for it was identical with the course prescribed in the normal department at Fayetteville. However, there was a three year preparatory course antecedent to this which began with the fourth reader, graded lessons in English and Robinson's shorter arithmetic.

Modifications in the course of study were soon being made in the way of lowering the requirements. In 1881, on motion of Trustee Thompson, Professor Corbin was allowed to deviate from the course prescribed in the catalogue of the normal department at Fayetteville by omitting descriptive geometry, differential and integral calculus and logic. Two years later the course was still further modified on the recommendation of Professor Corbin by dropping Latin. However, those who so desired might still complete the regular course and receive the normal diploma, while those completing the amended course were to receive only certificates for the work actually done.

Professor Corbin stated (1889) that the normal course was not intended merely to prepare for teaching and said that it differed from the regular college curriculum only in the omission of one or two branches of higher mathematics and including less Greek. The legislative committee of 1893 called attention to the fact that the normal features of the school were largely ignored, but there was no immediate change. Yet, a few years ago, eighty-four per cent of the graduates were said to be engaged in teaching. As it stands to-day the normal course is simply a short arts and science course with a very little pedagogy and some industrial work thrown in. The course

covers four years and leads to the L. I. certificate, or degree, as it is called. Latin and algebra are begun in the first year. For the first three years male students have four hours a week in the shops and female students eight hours in the sewing room. The last year this work is optional, but pedagogy and psychology are required for two terms. At the annual meeting of the board in 1909 the committee on the branch normal was instructed to raise the courses of study to coincide with a standard normal school "in so far as practicable at this time."

A course leading to the B. A., is laid down in the catalogue. In the autumn term of freshman year the student in this course is required to take English, mathematics, physics, and Latin, but just what English, what mathematics, what physics and what Latin it is he is not informed until he applies. Perhaps the little importance attached to this course accounts in part for the indefinite statements. The present principal of the school, Professor Isaac Fisher, states that out of 173 (1906) graduates of the institution, only ten have taken the B. A., and that the last candidate applied for it thirteen years ago. As a matter of fact, according to the alumni list, one graduated with the B. A. in 1882, one in 1883, four in 1884, two in 1885, one in 1889, and one in 1894. Much more emphasis is laid on the mechanic arts department where courses are offered in mechanic arts and manual training. The first covers three years, the second four, and ten hours per week of shop work is required each year in each course. The wood shop will accommodate 24 students, the forge shop 16, the machine shop 16, the tool room 4 and the boiler room 4. The object of these courses is to train young men for certain trades, especially carpenter, fireman and engineer, and to supply the demand for trained teachers in the industrial schools of the South. A good deal of time is devoted to English, mathematics and the sciences. The industrial feature for girls lays most emphasis on dressmaking.

Considering the aptitude of the negro for music it would be strange if this subject were neglected altogether. While the authorities have never made any special provision for it, the faculty have managed to arrange for instruction in both vocal and instrumental music. By concerts and donations a set of band and one of orchestral instruments have been secured. The choir of forty voices, trained by the principal,

is one of the features of every commencement. A small beginning in art has been made by the wife of the principal.

VI. Attendance.

Although the school opened in 1875 with only seven in attendance the first day, the total enrollment for the year reached seventy-five. However, many dropped out after a month or two so that the average attendance for the last three or four months did not exceed 45 or 50. For the year 1879-80, 126 were enrolled, of whom 13 were in "first grade," 42 in "second grade," and 71 in "third grade." As the "grades" are not elsewhere mentioned it is impossible to tell whether they were in the normal or in the preparatory.

The growth of the institution in attendance can not be said to be altogether flattering. It reached 218 in 1890-1 and fell back to 183 in 1894-5. Since then it has been as follows for the years given:

1899-1900	232
1901-1902	218
1902-1903	180
1905-1906	240
1907-1908	340
1908-1909	300

This variation is explained by the principal as "due to the fact that, unlike white children, negro pupils attend school according to the condition of the crops—good crops, good school attendance, and vice versa." The attendance is usually about evenly divided between the sexes.

Engineers in Camp, Engineer's Day.

CHAPTER XIX.

THE LIBRARY, MUSEUM AND LABORATORIES.

The Library.

The first recorded mention of the library is in a resolution of the board March, 1872, reciting that the reading room which had been opened in town and supplied with periodicals at considerable expense was so far from the university as to be of questionable benefit to the faculty and students. In view of this the executive committee was authorized to close it and open one at the university. Just when this action was taken does not seem to be a matter of record, but a man who entered as a student about this time says that "there was a small number (of books) in a case at one end of the upper room" of the first temporary building erected on the campus. The second year, when he began to use the books, he found there a very carefully selected lot, the most of them intended for use by normal students. A few periodicals were taken also. A few years later the library, still embryonic, was moved into the room over the chapel in the north wing of University Hall and this has been the scene of its development to this day.

Either because it was not thought worth while or because it was not feasible to do so, the library was not opened at regular hours until 1877. Then the faculty set the hours from 12 to 1 and 3:30 to 4 p. m. The librarian was directed to keep a correct list of all books belonging to the library and group them according to subject matter. No one except the librarian was to have access to the shelves and no one except teachers could draw a book from the library, though students were allowed to use them in the room. A teacher might keep any book one week or if text-book used in his class, one term. Three years later students were allowed to draw books on the written order of a teacher, and a year later the faculty by special action, limited the right to draw books to teachers and students.

The financial support of the library has never been flattering. The legislature of 1875 appropriated $725 for furniture and fixtures and $800 for books. In 1879 the appropriation was $1,000, which seems to have been the last until 1895. Meantime the board allowed occasional sums out of the maintenance fund amounting in all for this period of ten years to a little over $6,000. Some times a considerable part of the amount allowed was not spent. Out of an allowance of $350 for 1874-75 the treasurer reported on hand a balance of $123.26, and out of $800 for 1875-6, $732.98. For 1877-8 the amount spent on the library was $54.95. In 1895 the legislature renewed its appropriations with the modest sum of $500. This was increased to $750 in 1899, to $1,000 in 1901 and to $1,500 in 1903, but reduced to $1,000 again in 1907. The legislature of 1909 raised the sum to $2,000, but the governor got the board to cover one half the sum back into the treasury to help out the prospective deficit. In 1881 the faculty voted to impose a yearly fee of $1.00 on students for the benefit of the library, but, if ever enforced, it was not continued. In more recent time, in 1901 and again in 1906, they suggested this to the board, but the suggestion has not been approved. At times the fines imposed on users of the library have been about sufficient to pay for postage and stationery. It should be noted here, however, that the foregoing sums do not fairly represent the amounts available for books, especially for the last eight or ten years. Several of the departments spend the larger part of their maintenance funds for this purpose.

At first the board selected a librarian out of the student body, H. G. Coors, of the junior class, serving in that capacity at $6.00 per month in the spring of 1875. During the year 1875-6 six different persons held this office. For 1876-7 H. M. Butler, a sophomore, was elected at $14.00 per month. The next year the board abolished the office for purposes of retrenchment. Some member of the faculty, or a student selected by them, was requested to open the library for two hours on Saturdays in order that students might have an opportunity to draw out books under such rules as the faculty might prescribe. In 1879 R. W. McFarlane, a freshman, was elected librarian and directed to keep the library open from 7:30 to 8:30 a. m., 12:30 to 1:30, and 3:45 to 4:45 p. m. Professor Conrad seems to have had charge most of the time after this until he left the university in 1885, though

in 1882 the board authorized the election of a librarian at not more than $10 per term.

Beginning with 1894 the board again took in hand the matter of electing the librarian, designating a student, George Vaughan, to serve in that capacity. Judging from his report, he must have been an efficient officer. Since then they have demanded the whole time of the librarian, hence they have gone outside of the student body in their selections. The following is a list of those who have served in this capacity:

Miss Julia Angelina Garside	1895-1896
Miss Susie H. Spencer	1896-1900
Miss Ada Pace	1900-1902
Mrs. Neil Carothers	1902-1903
Miss Ada Pace	1903-1907
Mrs. Stella R. Lawrence	1907-1908
Miss Martha Brownfield acting	1908-1909
Mrs. Mary Austin	1909-

Few of these had had any special training for such work at the time of their election, though some of them secured such training as could be obtained in the summer months. As a matter of course they have had little trained assistance. In 1907 the board authorized the president to draw on the student labor fund for library help and since then three or four students are employed every year.

In 1891 a card catalogue was begun and has been continued at intervals since, but it is not yet finished. New books are now catalogued as they come in, but the library force is not sufficient to carry on the other work during the school year and they are not retained during vacation. The policy of excluding students from the stacks seems to have been kept up down to 1901. The seniors and juniors were then allowed "behind the railing" and the bars were soon thrown down to all collegiate students. This practice continued until 1910 when all except library attendants and professors were excluded from access to the shelves. The books and magazines during this period were on open shelves and were easily accessible to professors and students alike. In consequence there were many losses every year.

For a number of years the library has been kept open during the scholastic year from 8:30 a. m. to 5 p. m. For about a month in the fall of 1905 an experiment of keeping it open for three hours at night was made, but it was found that the expense was out of proportion to the number of students using it.

Of the library in particular we should like to be able to give a debit and credit account, a balance sheet that should take account not merely of dollars spent and books added and lost, but of men and women also. But this is impossible until a better system of accounting is invented and put into use, not only here, but elsewhere as well. The number of volumes reported in 1884 was 2,120, with no accounting for pamphlets, so that the number had only a little more than doubled in ten years. At present the number exclusive of government publications is said to be 19,001 books and 5,500 pamphlets, but this reckoning is made from the accession numbers and takes no account of losses, which have been considerable. The number now in the library probably will not exceed 15,000. Several of the departments have separate libraries, though their numbers are included in the above totals. The largest of these is that of the department of geology and mining, which reports 1,950 volumes and 1,500 pamphlets. The experiment station library, comprising about 2,316 volumes and 14,800 pamphlets, is not included in the total. The The library now has most of the government publications since 1875. In 1903 the legislature directed that duplicates of such publications then at the capital should be sent to the university. In this way and through the superintendent of public documents many of the earlier publications have been secured, though the set is far from complete.

The library outgrew its present quarters years ago and some of the books are stored in the basement. Repeated calls have been made on the legislature for a library building but without avail so far.

Concerning the men and women side of the account but little can be said. Not even the number of those using the library can be given, nor the number of books and pamphlets drawn out. However, there are many users, judging from the numbers to be seen there every day, and the number of worn out and lost books. It would be more interesting to know the benefit derived by the users, but no system of accurate measurement for this is known to the writer.

Museum.

The earliest notice of the museum dates back to 1877, when it was stated that the collection was still inconsiderable. The state geologist was required to forward duplicates of his collections. By the close of another five years the mineral collection had been considerably enlarged and five hundred animal specimens had been added. The legislature does not seem to have made any special appropriation for the museum previous to 1895, when it began with $500. This was increased to $1,000 in 1897 but dropped altogether in 1901. The appropriations since then have been as follows: 1903, $1,000; 1905, $700; 1907, $500; 1909, $500. Before the legislative appropriations were begun the board made occasional allowances for the museum. The collections have been made by the professors in charge of the department of geology, through gifts of private collections, purchase and exchange.

By 1894 the following were reported:

200 birds and murals, 80 species.

200 reptiles and amphibians, 40 species.

500 fishes, 150 species.

100 insects and other invertebrates, 200 species, 18 skeletons.

3,500 plants, 1,500 species.

1,500 fossils, 230 species.

150 specimens of rocks representing about 100 varieties of building and ornamental stone.

There were also a few archaeological specimens.

The winter vacation of 1894-5 was spent by the curator, Professor Purdue, in the service of the president of Stanford University and for remuneration he was given the privileges of the Seaside Laboratory where he collected about one hundred species of marine animals. Since then he has spent several vacations in the northwest where he took advantage of every opportunity to collect geological, zoölogical and botanical specimens. The private collection of Major F. F. Earle, formerly at Cane Hill College, was donated to the museum. The botanical and geological collection of Professor Harvey was bought soon after he left. The mineral collection has been increased from

time to time until it now contains about three thousand specimens, representing the different mineral groups. Besides these there are a number of geological relief and convex maps of some of the most interesting sections of the world's surface.

The educative value of the museum is twofold. Though of modest pretensions as yet, it is of incalculable benefit to students in geology and mining, and zoölogy and botany. It is also of interest to the general public who, when visiting the university, always seek it out.

The Laroratories.

The laboratories, the real workhouse of the university can hardly be said to have kept pace with the needs of the institution, though they are attaining respectable dimensions. The first catalogue statement in regard to the laboratories was published 1873-4, when we learn that "The University will be supplied for the coming year with mathematical and philosophical apparatus and additions will be made to the chemistry department, which is already in efficient operation." Just what the philosophical apparatus was the writer has not been able to determine. The mathematical apparatus probably had some connection with the work in engineering. The chemical laboratory seems to have been started first.

Chemical Laboratory.

To Professor T. L. Thompson, the first professor of chemistry, is due the inception of the chemical laboratory. The records show that, during the spring term of 1874, he spent $709.24 for chemicals—possibly a part of it for apparatus—and $146.66 for fixtures. He seems to have laid in a good supply, for the following year he spent only $8.40 out of an allowance of $500. In making their estimates for 1875-6 the board became very liberal, allowing $1,500, but only $7.38 of this was spent. Out of the same allowance for 1876-7, $495.55 was spent for apparatus and chemicals; the following year, $3.70. This was a period of rigid economy. Professors Harvey and Conrad were especially active in behalf of the chemical department and did what they could to build up the laboratory with the resources at their command. By 1888 the equipment was valued at $1,756. The largest

items were a gas machine, $480, gas fixtures, $200, balance, $225, and work benches $250. At the end of another six years the value of the laboratory had risen to only $2,276.83, but one gain had been made in moving out of University Hall into a building constructed specially for chemistry and physics though it was only a temporary one constructed at a cost of $2,000.

By this time the legislature had begun to make regular appropriations for the chemical department, starting with $1,000 in 1891, for the laboratory and $1,500 for the department. In 1895 the sum of $3,000 was appropriated for chemistry and physics, after this a little more than $1,500 on an average until 1905, when a new building was erected for chemistry alone at a cost of $10,000. One large room is used as a lecture room; the rest is devoted to the laboratories; they are provided with some of the best modern chemical apparatus for qualitative and quantitative analysis, physical chemistry and general chemistry, and organic chemistry.

For many years all chemical work, that of the agricultural department as well as that of the science department, was done in one laboratory. Now, however, the experiment station has a small laboratory of its own, occupying two rooms in the old agricultural building.

Mechanical Engineering.

The laboratory of mechanical engineering has been specially favored both by the board and the legislature for two reasons. In the first place, to develop the mechanic arts was one main purpose of the founders of the university; in the second place, it was possible to make the departmental laboratory serve not only as a place of practice for students, but also to be of material aid in maintaining the rest of the university. But as no very strenuous efforts were made to develop the mechanic arts previous to the middle '80's, the mechanical laboratory may be said to date from that time, though a few things had been purchased before this which could be used by other departments as well.

The legislature of 1887 voted $7,000 for the mechanical department, machinery, etc. A beginning had already been made by the board with $2,500 a short time before this. No separate building having

been provided the shops were fitted up in the south end of the basement of University Hall. The jar of the machinery and the smoke from the furnaces and forges proved very annoying to all above and the insurance companies asked for higher rates. The next legislature appropriated $5,000 for a shop building for the housing of the mechanical instruments and laboratory. By the close of 1894 the laboratory alone was valued at $2,761. The most important items in the list were a 30-horsepower Corliss engine, a 60,000-pound tensile testing machine and a set of models of engines and pumps. Besides the equipment of the wood shop was valued at $1,674.35, the forge shop and foundry at $1,049.40, the machine shops at $423.35, the drawing room at $2,612.55, and the power plant at $3,683.50. As this was before the days of division, some of these things were used also by what are now separate departments.

The legislature has continued its biennial appropriations, $3,000 in 1893, $8,000 in 1897 and an average of about $1,000 a year since, though this has been barely enough to renew the engines and purchase additional ones and other instruments as needed. Several modern engines have been installed and the steam boilers used for heating for the university building are made available for experimental work. Besides these there are many instruments commonly found in all such laboratories. The laboratory is now valued at $16,000.

Civil Engineering.

This laboratory seems to have had its beginning in 1874, when a compass was bought of Professor Gray for $82.00 and a "phantasmagoria" of W. A. Banks for $75.00. Out of $1,000 allowed for apparatus, $715.30 was on hand at the end of the year. After this the development seems to have been somewhat slow. The board was not specially liberal, giving $300 in 1886 which had to be shared with physics, and $150 in 1891. No legislative appropriation was made previous to 1899 when a beginning was made with $1,820. Since then the appropriation for maintenance of the department have amounted to $11,616, a good portion of which has been used in purchasing instruments. At present the laboratory is located in Engineering Hall and is equipped with some of the best modern instruments, such as engineers' transits and Y levels, theodolites, transit with solar attachment, compasses, a

sextant, aneroid and mercurial barometers. The laboratory for testing the materials of construction and for work in experimental hydraulics had machines for testing the quality and strength of cements and mortars, for testing steel (a 4,000-pound tension machine and a 5,000-pound transverse machine), for testing paving bricks and road material, and the necessary instruments for ordinary experiments in hydraulics. The present value of the laboratory is $9,044.

Electrical Engineering.

The department of electrical engineering is one of the most recent offshoots, but the board and legislature have been liberal in providing for its laboratory. In 1891 the board gave $1,385, the following year, $1,200 and $3,000 in 1893. The legislative appropriations began with $3,000 in 1899, dropped to $2,500 in 1901 and ran up to $5,305 in 1903 and this has been the standard ever since. These funds are for the maintenance of the department, but are expended mainly for laboratory material. By the close of 1894 the electrical laboratory was valued at $3,404.50. Since then it has grown steadily and has now attained very respectable dimensions. Without enumerating technical details, it is sufficient here to say that the laboratory is well enough equipped to enable students to make a wide range of experiments and attain skill and proficiency in operating electrical machinery. This laboratory also is of practical use to the university, being used to light a part of the university buildings. Its value is estimated at $15,000.

Physical Laboratories.

The physical laboratory, like the department it represents, has been the step-child of the university and the younger brother of several departments. For a time it shared in the appropriations for chemistry, then in those for engineering. It was begun in 1875-6 by Professor Harvey, who secured an air pump and its accessories, a Holtz electric-static machine, and a galvanic battery. In 1894 the equipment was said to be worth $3,600 but entirely inadequate. Ten years later, now in charge of the department of electrical engineering, the equipment was pronounced very poor and in a bad state of preservation. In 1907 it at last found a home of its own in a temporary

frame building only to be totally destroyed by fire two years later. It is now being replenished with the meager funds available.

Biological Laboratory.

The laboratories of biology, geology, and mining have been long collecting. Concerning the last two it is unnecessary to add anything here in addition to the matter relating to the museum more than that they have the instruments necessary for experimental work. Until within the last few years the appropriations were made to biology and geology so that the amount each received depended upon the professor in charge. The biological laboratory occupies the large room over the library in University Hall and is capable of accommodating about forty students. It contains a large collection of insects, a number of skeletons and models for teaching animal anatomy and an aquarium for keeping aquatic animals. It is also well supplied with microscopes and microtomes. The value of this laboratory is now about $2,000.

The Experiment Station Laboratories.

The various departments of the Agricultural College and Experiment Station have embryonic laboratories, but they have made but little more than a beginning.

Arkansas—Oklahoma 1909.

CHAPTER XX.

STUDENT ACTIVITIES.

Literary Societies.

Judged by the number of literary societies which have sprung up within her walls the University of Arkansas is a decidedly literary institution. But many of them have passed away. Some time during the year 1873 the first literary society of the institution was organized under the name "Clariosophic." Its clarion notes were heard until 1878 when they ceased forever.

For some reason eleven members of the Clariosophic became dissatisfied with their society and organized another in 1873 which they called Mathesian. This society is noteworthy as being the oldest now existing in the university and it has had something of a history, parts of which will be omitted or condensed here. It differed from the Clariosophic in that both boys and girls were admitted to membership. Perhaps it was this fact which led it into conflict with the trustees about the time of meeting. At first it met at night, but as this did not meet the approval of the board the time was changed to the afternoon. The sixth recitation hour was omitted on Friday from December to February for the benefit of the societies. This question being settled the members then fell to fighting among themselves and the girls expelled all the boys. Finding that the meetings were now far less interesting they soon relented and readmitted the boys, only to be themselves expelled as a reward. However, the boys soon discovered that it was not good to be alone and took back the girls.

In the course of time the society fitted up an elegant room on the fourth floor of University Hall where it has held weekly meetings throughout its long career. It has also been mother to two other societies, the Grady for young men and the Sapphic for young ladies. The former has passed away, the latter still survives. The society has proved worthy of its motto: "By their fruits shall ye know them."

Some of the university's most distinguished alumni were once members of the Mathesian.

Being a mixed society the Mathesian has not been quite so strong on debate as the societies composed of males alone. Its programs have been of a general nature. At times prizes have been offered to stimulate literary activity. In 1884 the society itself offered two medals, one for the best oration by a freshman or sophomore member and one for the best essay by a female freshman or sophomore member. For a while Dr. A. S. Gregg and Professor G. W. Droke, both former members, offered prizes for the best oration and the best declamation by any member of the society. At commencement the society has often taken part in the program and has presented plays which were a credit to student histrionic art.

Little is known of the Philomathean beyond the fact that it continued in friendly rivalry with the Mathesian until the session of 1895-6, when it finally succumbed.

The early '80's seem to have been as productive of societies as of degree courses. The Euphradian was born of college students in 1880, but not even college students could sustain such a name and it died in about a year. The preparatory students had taken a step even more bold than this the year before when they organized the Phermakopton, Cleosophic, and Euandric. Nothing daunted by the early demise of these another effort was made in 1880-81 with the Kalligernan and Alethian, but all died in infancy.

Profiting by these experiences the preparatory students waited a few years and then tried again, selecting for a name that of an Arkansas statesman. The Garland Literary Society was organized in 1886 and was named in honor of the Honorable Augustus H. Garland, sometime governor of Arkansas and the attorney-general in President Cleveland's cabinet. In 1908 the society gave twenty dollars to a fund being raised by the "Arkansas Gazette" for the purpose of erecting a monument at Mr. Garland's grave.

Though organized by preparatory students the doors of the society were soon thrown open to all male students without regard to class. The society has had a successful career, maintaining a large membership during a good part of this time and winning honors as will be

recited below. Its object has always been to develop the power of oratory, argumentation, and literary talent in general, and its programs have been planned with this end in view, but special emphasis is laid on debate. Open programs have been given annually for some time. In furtherance of the object to interest the members in public affairs a miniature legislature of two houses was organized in 1907 and the members thereby acquired considerable practice in parliamentary usage and legislative procedure. One member, D. E. Johnson, went out from the society to occupy a seat in the state legislature of 1909. Professor J. W. Kuykendall once offered a medal to be contested for by members of this society. For several years Professor G. A. Cole gave a medal to that member showing the greatest improvement in debate and Professor R. E. Philbeck offered a prize for excellence in oratory.

Representatives of the Garland have participated in the inter-society and intercollegiate debates since they were instituted in the university. They won the Johnson Loving Cup in 1905, 1906 and 1907 and the Brough Debating prize in 1905, 1908 and 1909. A representative also captured the Bryan prize in 1905. The motto of the Garlands is "Nulla vestigia retrorsa."

The history of the Grady society is difficult to trace. It appears to have been organized in the spring of 1895. In November of that year it was assigned to Room 44 in University Hall as a place of meeting. The following spring it was said by an enthusiastic admirer, perhaps a member, to be "the best that ever existed in the university," but its career soon ended.

The next society to be organized was the Periclean. In the fall of 1900 four young men began to meet for the purpose of debate. They soon attracted others and in March, 1901, secured recognition from the faculty and were assigned a room for a regular meeting place by the board some time later. This society took off the Johnson Loving Cup in 1903 and 1904 and the Brough prize in 1906 and 1907.

The year 1906-7 witnessed the organization of two more societies; the Lee, formed in November, 1906, by a few young men who withdrew from the Periclean because they felt that its large membership did not allow sufficient opportunities to each member, and the Domosthenean, which came with the first robins in the spring of 1907. Still another,

the Franklin, was organized in 1908. The motto of the Demosthenean is "Tam Marte quam Minerva"—as much by courage as by skill. Membership is limited to twenty in order that all may have an opportunity to take a part in the weekly program. The Lee won the Johnson Loving Cup in 1908.

The Philotimesian was the first literary society organized in the university exclusively for girls. March 26, 1896, a few girls, feeling the need of such training as is acquired only in such societies, met to take the initial steps of organization. At the next meeting the name Philotimesian, a classic appellation suggested by Professor Shannon, was adopted. The charter members were: Misses Nelle Hunt, Minnie Baker, Alice Hoag, Minnie Gunter, Ollie Adams, Daisy Patterson, Gert Gunter, Ruby Washington, Florence Rosser, Lillian Bibb, Rose Leverett, and Winona Wiley. Having selected "Spectemur Agendo" as a motto, the Philotimesians started off with a flourish of trumpets, boasting that they stood upon no ancient ruins, but were a new organization and stood upon a stabler foundation of their own. For some reason, however, the foundation crumbled and the society disappeared.

The only literary society now in existence for girls alone is the Sapphic, which was organized by the Mathesian January 12, 1906. Its purpose is "to give practice in parliamentary law, to stimulate a greater interest in literature and the fine arts and to cultivate the fellowship among its members, which is necessary to the right appreciation of college life." It is endeavoring to carry out this purpose under the motto "Paulo majora canamus."

Intercollegiate Debates.

The first intercollegiate debate ever engaged in by representatives of the university took place in 1896. The subject was the one then uppermost in politics, free silver, and the opponents came from the University of Missouri. The debate was held on home ground and was lost. In another encounter with the Missourians in 1899—Drury, of Springfield, this time—the representatives of Arkansas had no better success. In 1903 arrangements were made for a debate with the University of Texas.

The year 1906 witnessed the revival of interest in this work at the university. At this time arrangements were made with Southwestern University at Georgetown, Texas, for a series of three debates. In 1907 arrangements were made with Drury College, the third in the series with Southwestern having been broken off, and later with Baylor University, Waco, Texas, and the University of Oklahoma for meetings in the field of debate. The result of these debates, with the names of the debaters, was as follows:

1906.	Southwestern	Abe Collins and G. A. Hurst	Lost
1907.	Southwestern	A. J. Johnson and J. P. Woods	Won
1907.	Drury	Abe Collins and A. Starbuck	Won
1908.	Oklahoma	W. J. Jernigan and J. P. Woods	Won
1908.	Drury	O. E. Williams and J. J. DuLaney	Won
1909.	Baylor	D. L. Ford and J. G. Arnold	Lost
1909.	Oklahoma	A. E. Waterfield and A. P. Patton	Lost
1910.	William Jewell	J. E. Goodbar and M. P. Hatchett	Lost
1910.	Baylor	J. L. Bledsoe and J. C. Ashley	Lost

Down to and including the debates of 1909 the representatives were chosen by the literary societies. Beginning with 1910 they will be chosen through a preliminary debate before the faculty.

While these debates have aroused much interest among a few they have not been as potent for arousing general enthusiasm as could be wished.

Clubs.

Besides the formal literary societies there have been numerous clubs and societies whose objects were partly literary and partly social. The nearest approach to a scholarship society is the Torch Club, which was organized among the senior young ladies in 1908 through the activity of Miss Jobelle Holcombe, dean of women. Members are elected in May of each year from the junior class, the eligibility being based on an average grade of E on the work done while in the university. The purpose of the club is to furnish an incentive to scholarship among the girls, to promote high ideals of womanhood, and to bring about closer relations among the young ladies of the graduating class. In furtherance of this end some attention is paid to the social side of life. The symbol of this club is a torch and the colors are red and black.

Several societies have sprung up for the purpose of promoting study along certain lines. The Science and the Sociology clubs were organized in 1896, the former open to all students, the latter composed of professors, students, and citizens, but both came to an untimely end. The Engineering Club, organized in 1903, and composed of teachers and students in technological subjects, still meets to read and discuss papers on subjects relating to engineering problems. A branch society of the American Institute of Electrical Engineers was established at the university in 1904. It meets twice a month to read and discuss advance copies of papers to be presented to the Institute meetings in New York. Both these societies have undoubtedly done much to stimulate interest in the subjects with which they deal. The Deutscher Verein (1904) and the Cercle Francais were organized to promote the study of German and French life and literature, respectively, and especially to give practice in the spoken language. The English Club (1905) devotes itself to different phases of English philology. There is also an Agricultural Society (1906) whose object is sufficiently indicated by its title.

The dramatic club is of recent origin, but gives promise of becoming a permanent institution of the university. In the spring of 1908, under the direction and training of Mrs. Willie Vandeventer Crockett, of the expression department, it presented "Twelfth Night" at the Ozark theater in Fayetteville with marked success. "Merely Mary Ann" was put on the boards at the following commencement and afterwards presented at several different places in the state. At the commencement of 1909 "The College Widow" was presented to a house crowded to the doors.

Just when the first glee club was organized at the university it would be difficult to say. There was one in existence in 1897 and possibly at intervals after that. When Dr. C. G. Carroll came to the university, being of a musical turn, he at once began to take an interest in the matter and by 1906-7 had worked up a club which ventured to appear before the public outside of Fayetteville. The club has been under his direction ever since and has made tours of the State every year.

Publications.

The desire for a form of literary expression more permanent and of a wider scope than that to be had in the societies was realized in 1893 in the foundation of the "University Magazine," which changed its name two years later to "The Ozark." This was a monthly journal edited by a board elected by the students. The board of trustees were asked by the faculty to appropriate one hundred and fifty dollars in 1891 to aid in establishing such a journal, but they seem to have taken no action until 1893, when they gave two hundred dollars on condition that the university be advertised. After the change of name it was supported by a stock company incorporated under the laws of the State. This control continued until 1899, when the management was turned over to the Mathesian and Garland societies.

The greater part of the magazine was taken up with essays, poems, and stories, contributed by students, with an occasional paper by some of the professors. There were also a few pages devoted to editorials and news notes of university life. As college journals go, this one certainly compared favorably with its contemporaries and its demise in 1901 was a distinct loss to the university.

The place of "The Ozark" can not be said to have been taken by the "University Weekly," which was started in 1906. It has made a place for itself by giving gossipy news from week to week and more or less full accounts of important events of university life.

In 1897 the students began the publication of annual called "The Cardinal," and it has been issued every year since with the exception of 1899. It is managed by a board from the junior class, but the legislature usually makes a small appropriation for its support.

The question of allowing credit for work done on the publications has been presented to the faculty several times and the board has even favored granting credit for meritorious work in the literary societies. In 1894 by special action, the editor was allowed to substitute work on the magazine for two hours of history. In 1897 a committee of the faculty was appointed to make general rules in regard to the matter and they did this by arranging a so-called elective one-hour course in English composition. To get credit for this one must present prose and poetry suitable for publication. The require-

Agricultural Building.

ments were, nine prose articles of at least 1,350 words each; four articles or editorials amounting to at least 1,500 words; one poem of at least 500 words; or three or fewer poems amounting to not less than 600 words as a substitute for a long composition. These papers were to be criticized by the teacher of English and receive a grade of G or higher. The course was open to all collegiate students. Even with this as a stimulus the editor still had to appeal for contributions. The credit was soon discontinued and a petition presented in November, 1902, for credit for work done on the "Weekly" was denied.

Prizes.

Medals, prizes, and honors have been offered by the board, the faculty, societies, and individuals almost since the foundation of the university for the purpose of stimulating endeavor in literature, science and oratory. The custom seems to have begun in 1876 when two medals were offered to be contested for at commencement by four of the sophomore class. For one year (1881) Dr. J. F. Simonds offered a prize of twenty-five dollars for the best reader in the preparatory department. Beginning about 1882 it was for a while the custom of the faculty to award a place on the commencement program to the two juniors standing highest in their class. They were expected to deliver orations. For several years after this elocution, oratory, and debate seem to have been their own reward, except for such prizes as were offered by the literary societies. Since 1903 Dr. W. S. Johnson has offered a loving cup to be contested for by representatives of the literary societies. The same year Professor J. W. Carr offered a prize for the best reading from Shakespeare. Since 1905 Dr. C. H. Brough has offered a prize of twenty dollars for excellence in debate which is open to the members of the literary societies. It is contested for in a preliminary impromptu debate and in a prepared debate at commencement. In 1907 the Hon. Otis Wingo instituted a prize of ten dollars for excellence in declamation. In addition to these, prizes have been offered at times by or through special societies for their own members.

The prizes offered for essays have not been numerous, and the primary object of many of those offered has been to stimulate interest in some other field than that of English literature. In 1877 a prize

of fifteen dollars was offered by the board for the best essay on public schools. Two years two members of the board offered prizes of twenty-five and ten dollars for the best essay on the agricultural resources of the state. From 1877 to 1885 Mr. B. H. Stone offered a medal valued at twenty-five dollars for the best essay written by any student of the university, the subject to be selected by the faculty. From 1885 to 1891 there do not seem to have been any prizes or honors except such as were offered by or through the literary societies. Beginning with the establishment of the "University Magazine" in 1893, a prize of twenty-five dollars was offered a few years for the best contribution to that publication. In 1900 the Hon. W. J. Bryan donated the income of a lecture, amounting to two hundred and fifty dollars, as an endowment for a prize. This prize may be competed for by seniors and juniors whose grades have been G or above in more than half their work. The subjects for the essay must relate to some problem of government and are selected in alternate years by the departments of economics and sociology and history and political science. In 1902 Messrs. Trezevant and Cochran of Dallas, Texas, offered a prize of fifty dollars for the best essay on fire insurance. Since that time several prizes have been offered by different individuals and companies for essays on some phase of insurance.

A few prizes have been offered from time to time for the purpose of stimulating activity in pure and applied science. For two years (1878 and 1879) Professor F. L. Harvey offered three prizes, one for the best collection of state plants numbering at least one hundred and fifty, one for the best collection of reptiles over twenty in number, and one for the best considerable collection of geological specimens of Washington County, Arkansas. About the same time Messrs. D. Appleton and Company of New York were offering a prize of twenty-five dollars to be awarded the senior with the highest average in mathematics for the entire four-year course. For one year (1883) a member of the board endeavored to stimulate interest in geology by a prize of twenty-five dollars. The prizes intended to stimulate interest in agriculture (1894) have been detailed elsewhere.

A few stimulants to general scholarship have been offered in the form of "honors." Beginning with 1892 and running for several years the graduate standing highest in the three colleges at Fayetteville were

to receive respectively "honors in arts," "honors in science," and "honors in engineering," provided in each case the average grade did not fall below 85. The students receiving these distinctions were allowed to deliver speeches or read essays on commencement day. Beginning with 1895 students who had attained a grade of E in work aggregating at least fifty-five hours were granted degrees "with special distinction," those with the same grade in thirty-five hours' work or G in fifty-five hours were graduated "with distinction." In 1897 the requirements were lowered to fifty and thirty-two hours respectively. The custom was dropped in 1903.

The Honor System.

In 1904 the faculty were asked by some students to give their approval to the organization of an honor league and they did so. The object of this league was to enforce the honor system on examinations at the university. The league continued its activity for five years, but with only moderate success. The failure of the system was ascribed in part to the supposed secrecy of its membership and the star-chamber nature of its trials.

In 1910 a new system was inaugurated by almost unanimous vote of the student body. According to the constitution then adopted a jury was selected by the presidents of each class, consisting of four seniors, three juniors, two sophomores, and one freshman, both boys and girls and fraternity and non-fraternity men being represented. Any student who sees cheating is to report the case, with evidence, to this jury. If, after investigation, the jury thinks the evidence warrants a trial, they cite the accused and give him a trial, confronting him with witnesses and evidence.

GREEK LETTER FRATERNITIES.

Kappa Sigma.

The first Greek letter fraternity to enter the university of Arkansas was the Kappa Sigma, which established Xi chapter on the night of May 29, 1890, by the initiation of three members, John C. Futrall, W. A. Crawford, and C. C. Miller. Dr. Charles Richardson, an

alumnus of Omicron chapter at Emory and Henry College, who was residing at Fayetteville, officiated. A week later W. S. Goodwin and G. B. Pugh were initiated. Some time after this S. M. Purdy was initiated and the chapter closed the year with six members. In 1891 the membership was increased to twelve, but only one new member was received the following year and in 1893 the chapter lapsed because none of the members were in school. In 1894, however, George Vaughan returned and, by vigorous work, raised the membership to nine by June and to twenty by the close of the year.

In 1896 a new departure was made in the initiation of a student in the law department, the chapter going to Little Rock for this purpose. Three other law students were received soon after this.

Sigma Alpha Epsilon.

The next fraternity in the order of their establishment was the Sigma Alpha Epsilon, which established the Alpha Upsilon chapter at the university July 9, 1894, by the initiation of sixteen men. All of these were said to be "full of jest and youthful jollity" as well as being men devoted to their studies. The names of the charter members follow: James D. Head, John C. Bell, Charlie D. Adams, William E. Boyd, William M. Fishback, Jr.; Elbert L. Watson, Louis R. Ash, Robert T. Pittman, Richard B. Irvin, Jubal E. Beavers, Henry H. Rightor, Edgar E. Moberly, George Nicholls, Carl P. Barnett, Oscar M. Gates, John M. Kelso, Jr. and Edward L. Mock. The organization of the chapter was due to the activity of Mr. George Bunting, who was acquainted with one man at the university, and by means of correspondence secured the organization of the band which applied for the charter. Alpha Upsilon chapter has initiated one hundred and sixty men. The average membership is about nineteen.

Kappa Alpha.

The Kappa Alpha fraternity entered the university April 27, 1895, by the initiation of eight members who then constituted Alpha Omicron chapter. Claude O'Neal of William Jewell College performed the work of installation. The charter members were: J. F. Summers, R. Shaha, C. J. Drees, J. H. Parker, J. H. Godrey, A. M. Brixley, J. L.

Campbell, and E. L. Spencer. Within a year eight new members were initiated but there were only eleven active members at the end of the year. The total number of initiates since organization is one hundred and twenty-one. The average membership has been about seventeen. A chapter house was occupied in September, 1909, for the first time.

Sigma Chi.

October 25, 1902, a number of students organized themselves under the name of the Indian Club and immediately decided to petition the Sigma Chi fraternity for a charter. The club met with many reverses and disappointments, but kept up its organization and initiated new members. The prayer for a petition was finally granted and Omega Omega chapter was installed September 16, 1906. The charter members were: E. C. Catts, L. L. Campbell, C. C. Hillman, R. G. Stacy, Garland Hurt, G. D. Chunn, J. C. McDonald, R. R. Pritchett, A. L. Russell, C. H. Sheppard, D. F. McKean, J. P. Streepy, C. H. Stotts, D. F. Milner, J. M. Semms, T. D. Elder, E. V. Leverett, and C. F. Mercer. The total membership is fifty-three. The average active membership has been about nineteen. In 1908 a large dwelling near the campus was rented and has been used as a chapter house ever since.

Pi Kapa Alpha.

The Alpha Zeta chapter of Pi Kappa Alpha was organized at the University of Arkansas November 19, 1904, and was the outgrowth of a local organization called Alpha Phi which was about a year old at the time of its absorption. The chapter was established by N. T. Wagner and G. A. Penick, who were then in the government service at Tahlequah. A fine example of the pan-hellenic spirit was manifested in connection with this work. Believing that a chapter of his fraternity should be established at the university Mr. Penick wrote to a friend here who was a member of Sigma Alpha Epsilon and asked him to recommend a man to undertake the work of organization. The local Alpha Phi was recommended with the results already indicated, though the national council hesitated for a while to grant the charter because of the anti-fraternity feeling then supposed to be dominant. The charter members were: Samuel G. Davies, Lloyd R.

Dairy Building.

Byrne, Ashleigh P. Boles, John W. Trigg, W. S. Fuhrman, J. Q. Blackwood, Arthur C. Parker, M. L. Reinberger, H. Rush Smith, and W. E. Thompson. The entire membership of the chapter is thirty, of whom fourteen are active members at this writing. This chapter was instrumental in installing Alpha Iota at Millsaps College.

Sigma Nu.

In 1902 a body of petitioners organized themselves under the name of the Owl Club. In the fall of 1903 they changed the name to Alpha Gamma and under this name sent in a petition to the general officers of the Sigma Nu fraternity. The charter asked for was granted and Gamma Upsilon chapter was installed December 21, 1904, by four men from the Missouri School of Mines. The charter members were: W. T. Fields, William Glover, Thomas E. Trigg, R. D. Mesler, J. R. Bloom, P. R. Booker, E. C. Boles, Hal Green, F. A. Tillman, J. T. Watson, T. C. Mullins, P. S. Seamans, J. R. Hurst, Gordon Vaulx and H. L. Westbrook. In all fifty-six men have been initiated. At the time of this writing there are eight active members. In 1908 a large residence was rented as a chapter house and all the active members who are not residents of the town live there.

This fraternity was founded January 1, 1869, at the Virginia Military Institute by six men, two of whom now live in Arkansas, a fact of which the Gamma Upsilon chapter is proud. These men are Major Greenfield Quarles, of Helena, and Mr. James F. Hopkins, of Mabelville.

Sigma Phi Epsilon.

Arkansas Alpha Chapter of the Sigma Phi Epsilon fraternity was installed in the University of Arkansas October 2, 1907, by the Grand President, N. R. Cooney, with the following men as charter members: J. J. James, C. E. Goodner, T. D. Williamson, C. H. Woodruff, J. W. Baxter, W. S. Morgan, Earl Witt, G. F. Jones, W. S. Ross, L. R. Plemmons, T. M. Plasson, J. I. Pitchford. The total number of initiates January 1, 1910, was thirty. The average membership has been ten men. A chapter house was occupied in 1908-'09.

SORORITIES.

Chi Omega.

The following account of the founding of the Chi Omega is taken from "The Ozark," May-June, 1896:

In the spring of '95 four young women, becoming interested in fraternity work, formed among themselves a little club which they dignified with the name of a Greek letter fraternity, or rather "sorority."

However, the novelty of this soon wore away, and they were eager to try something new, when one evening Dr. Chas. Richardson, a staunch fraternity man, offered to draw up for them a charter in regular form, and to provide them with a constitution and ritual, so that they might be a fraternity in reality, and not in name only. The young women were enthusiastic at once, and a few days later Misses Holcombe, '98; Vincenheller, Boles, '98, and Simonds, '96, were enrolled as charter members of the mother chapter, Psi, of Chi Omega Fraternity at the University of Arkansas.

Their first regular meeting was held on April 9, '95, and on the 20th Misses Allen, Beattie, Davies, Remy and Wood were initiated.

At the end of the following year there were twenty-two members, one of whom was Miss Ida Pace, an associate professor in the faculty. Since then the local chapter has maintained a vigorous life and has expanded into other fields. In consequence there are now fourteen alumnæ chapters and twenty-four active chapters, the latter being located in schools of collegiate grade from Colby College, Maine, to the University of Washington, and from the University of Michigan to the Woman's College at Tallahassee, Florida. For several years Chi Omega has been a member of the Woman's National Pan-Hellenic Conference, an enter-sorority organization of representatives from the national sororities in the United States. The prominence of Chi Omega in this work is due mainly to two alumnæ of Psi chapter, Miss Jobelle Holcombe, representative in the Woman's Pan-Hellenic Conference, and Mrs. A. H. Purdue, the grand president of the sorority.

Chi Omega has always encouraged scholarship and high social standards. To promote scholarship the governing council offers yearly a silver loving cup to the chapter having the highest scholastic standing. It also secures from the college authorities a report of the condition of the respective chapters on the following points: (1)

scholarship; (2) coöperation in college enterprises; (3) interest in the Y. W. C. A.; (4) social standards.

Zeta Tau Alpha.

Epsilon chapter of Zeta Tau Alpha was established at the University of Arkansas January 16, 1904, with the following charter members: Mrs. Bess (Kell) Rose, Mrs. Bess (Byrnes) Dritt, Mrs. Mable (Sutton) Wasson, Mrs. Della (McMillan) Jackson, Miss Grace Jordan, Miss Hattie Williams, and Miss Margaret Hutchinson. Only four of these graduated. Epsilon chapter has enrolled seventy-three members, twenty-one of whom have graduated from the university. The average membership of the chapter is about fifteen.

Pi Beta Phi.

February 8, 1906, the Gamma Epsilon Delta, a local sorority, was organized at the university with the following charter members: Misses Barbara Davis, Lytta Davis, Elizabeth Winters, Stella Hight, Beulah Williams, Mary Campbell and Madge Campbell. From their first organization it was their intention to apply for a charter from the Pi Beta Phi sorority. When their application was made it was backed by written recommendations from every fraternity and sorority in the university. Beginning in March, 1907, several members of the governing council of Pi Beta Phi visited the society with a view to passing upon their application. During the year 1908-9 the members of Gamma Epsilon Delta occupied a part of the Arkansas Building as a chapter house. Among outsiders who have taken great interest in building up the sorority may be mentioned Mrs. W. N. Gladson, a member of Pi Beta Phi, Mrs. James Bohart, Mrs. Joe Harrison, Mrs. A. I. Moore, and Mrs. Will Hight. The petition for a charter was finally granted and the members of the Gamma Epsilon Delta were initiated into the mysteries of Pi Beta Phi December 29, 1909, by Miss May Heller, of the Woman's College, Baltimore, Mrs. Nathan Merriam, of Fort Smith, Mrs. Hugh Branson, of Nowata, Oklahoma, and Mrs. R. C. Gilbert, of Siloam Springs. The charter members were: Mary Campbell, Mrs. Barbara (Davis) Olney, Lyta Davis, Nelle Wilson, Ovid Barrett, Josephine Dubs, Sunshine Fields, Elizabeth Nichols, Mary Shannon, Claire Norris, Wanda Richards, Mary Droke,

Bess Graham, Sula Fleeman, Ruth Jennings, Margaret Stuckey, Lillian Wallace, Ruth Wood, Mildred Gregg, Sallie Pope, Susie Moore, Hazel Gladson, Lucy Nichols, Victoria Vogel, and Madge Campbell. Only fifteen of these are active members. Four other active members of Gamma Epsilon Delta, Aurelle Burnside, Bess Carnall, Ruby Cotham, and May Pittman, were unable to be present at the installation of the chapter.

Christian Associations.

Some time during the year 1880-1 a Young Men's Christian Association was organized among the students at the university, with the following officers: G. W. Droke, president; R. R. Moore, vice-president; O. C. Bates, secretary, and T. F. Oates, treasurer. In the course of the year twenty-one members were enrolled, including members of the faculty and citizens of the town. The following year the membership more than doubled, reaching forty-eight, but after this there was a decline and the association practically ceased to exist in a few years. Ten years later (1895) it was reorganized and given quarters in the South Dormitory where a class in Bible study met Sunday evenings, but again there was a decline. In the spring of 1902 there was a second reorganization under the direction of Mr. J. L. Schoolfield, state secretary, beginning with seventeen members who soon secured a charter and made the association a branch of the national organization. For a time the growth was slow, but persistent and heroic effort was crowned with success. When Professor J. H. Reynolds entered the faculty in the fall of 1902 he at once took an interest in the association and gave valuable assistance in putting it on its feet. Professor G. W. Droke, the first president of the first association back in 1882 was also here as a teacher and gave his help. In 1905 a regular secretary was secured in the person of Mr. Ernest Given Howe who served until 1907. He was succeeded by Mr. B. W. Dickson who served until 1909 when he resigned to continue his studies at Yale. The present secretary is Mr. L. H. Gardner, who entered on his duties in the fall of 1909.

For some time the association has been a strong force in university life. Commodious quarters were secured in the basement of the left wing of University Hall, where they now have an assembly hall, committee rooms, and an office and reading room. Several Bible

study classes are maintained under student leaders and are well attended, with an average attendance of about one hundred and twenty-five. During the year 1908 two young men decided to enter the ministry. The membership of the association has gone beyond two hundred. For several years it has managed a lecture course and has brought to the university some of the best talent on the American platform.

In September, 1904, a young Women's Christian Association was organized at the university by Mrs. Beauchamp, of Little Rock. It began with twelve members, but enrolled sixty before the close of the year. Miss Beulah Williams was the first president. The association has been active and vigorous ever since and now has a regular secretary, Miss Elva Sly. It has an assembly room in Carnall Hall.

Both associations have taken an active interest in missions and have maintained volunteer bands. In 1908 there were nine members of this band, said to be more than at all the denominational colleges of the State combined.

Athletics.

Athletics worth while can not be said to have had a very long history at the university though an athletic association was formed in 1893 "to foster and encourage the growing interest which the student body is manifesting in the development of the physical man." It was composed of the Athletic Club, the Tennis Club, the Baseball Club, and the Football Club. Each member of the association except the Football Club was required to give an exhibition each term under the supervision of the governing council, which was composed of two members of the faculty and the presidents of the different clubs.

During the latter '90's games began to be played away from the university by the football and baseball teams, though they can hardly be styled intercollegiate as most of them were not with college teams. The results were not altogether satisfactory and considerable opposition was developed among some of the higher powers, but the games continued. In 1901 the faculty devised stricter rules to determine who should participate in the games. No one not a bona fide student doing full work was to be allowed to play on any team representing the university. No "professionalism" was allowed and no student deficient in his studies was to be allowed to play.

Green House.

There was a faculty committee on athletics whose duty it was to see that the rules were enforced.

These rules remained unchanged for several years and apparently unenforced for a part of the time. In March, 1905, the faculty instructed the committee on athletics to see that they were enforced. Each professor was required to report every Monday, during the athletic season, the standing of each member of his classes who was a candidate for or playing on any of the teams. Delinquent students must be dropped from the team if they did not make good after two weeks' warning. A month later this action was rescinded and the faculty committee on athletics was now required to get a list of the players, look into their grades at the middle and end of each month and report to the faculty such cases as they thought required such action. Any student failing in over one half his work for any term should not be allowed to take any part in athletics the following term, unless his deficiencies were made up. The rules still stand, but have not been fully enforced.

Nothing like any adequate provision for the exercise of athletics was ever made until the '90's when the athletic field was laid off in the southwest corner of the campus and a grandstand was erected. In 1902 the barns were moved west of the street in order to make possible the enlargement of the field. Seven years later the whole west end of the campus was turned into the field and work was begun on a track. The trustees have shown their interest in the subject by making small appropriations several times. In 1907 they authorized the president to draw upon the contingent fund for this purpose. In recent years attempts have been made to put the athletics of the university on a better basis. One step in this direction was the employment of a coach for the training of the teams, which was begun recently. In 1908 the coach, designated director of athletics, was required to reside at the university all the year and was admitted to the faculty.

Student Customs.*

Customs distinctively peculiar to the students of the University of Arkansas are comparatively recent in their origin. Fifteen or

* The authors are indebted to Mr. J. J. DuLaney for the matter in this section.

twenty years ago, owing to the small number of students and absence of intercollegiate relations scarcely any special customs prevailed. Yells and class songs existed, but there were no peculiar exhibitions of college spirit except what was manifested in enthusiasm at athletic games or in nocturnal college pranks. Most of the customs now in vogue have grown up within the last eight or ten years. During this time the enrollment of the university has almost doubled, and frequent relations with other colleges and universities have been influential in establishing new customs and practices.

For several years the graduating class has been given a day during commencement week, known as Class Day on which the seniors give a program consisting of class oration, prophecy, history, poems, etc.

Of all class days perhaps "pennant day" is the best known and the most enjoyable. It originated in March, 1903, as a holiday given to the junior and senior classes. At first the seniors placed their pennant on a pole and the juniors accepted the implied challenge to take it down and furl theirs instead. A general class struggle followed sometimes accompanied with violence and personal injury. After a year or two this class fight was discontinued by faculty orders, but the holiday is still granted. On pennant day these two classes are excused from recitations. In the morning they attend chapel and make the hall ring with yells and class songs. Afterwards for an hour or more they promenade the corridors and with yells, songs and diverse noises they annoy the professors, who are valiantly struggling to impart knowledge to the absent-minded lower-classmen. Next the juniors and seniors repair to one of the literary society halls where a short joint program is given. The next feature is laying the concrete block in the walk in front of University Hall. On this slab the names of the graduates with the year is engraved. The first slab was laid in 1905. The next in order is planting the senior tree on the campus with appropriate ceremony. This custom began in 1907. In the afternoon the two classes play a game of baseball and the day's festivities close with a joint banquet at night.

On the first of May, the juniors and seniors are entertained at the home of the president of the university.

Hazing at the university has never assumed the serious aspect that it has at some colleges. In recent years it has taken the form of a friendly "reception" to the new boys at the dormitories. At the first of the year the new men are taken out and marched over the city, and given exercises in military tactics, singing, yelling, dancing and such "stunts" which the old men think will be helpful to them later on.

On March 17, 1909, the engineering students of the university inaugurated the custom of observing St. Patrick's day as a holiday for engineers. They go out upon the field with all the paraphernalia of engineers as is befitting a celebration in honor of their patron saint. This feature attracts special attention to that department and will doubtless remain a fixed custom.

Another custom, not peculiar to this university, is the "night shirt" parade given by the boys when an athletic victory is won. It usually ends with a bonfire on the campus.

The University Song.

In 1909 a prize of fifty dollars was offered for the best poem relating to the University of Arkansas which should be capable of being set to music and used as a college song. In a long list of competitors the prize was awarded to Mr. Brodie Payne, '06, of Hot Springs. The words were set to music by Professor H. D. Tovey and are given below.

Alma Mater.

Pure as the dawn on the brow of thy beauty
Watches thy soul from the mountains of God
Over the Fates of thy children departed
Far from the land where their footsteps have trod.
Beacon of Hope in the ways dreary lighted;
Pride of our hearts that are loyal and true;
From those who adore unto one who adores us—
Mother of Mothers, we sing unto you.

We, with our faces turned high to the Eastward
Proud of our place in the vanguard of Truth,
Will sing unto thee a new song of thanksgiving—
Honor to God and the Springtime of Youth.
Shout for the victor or tear for the vanquished;
Sunshine or tempest thy heart is e'er true;
Pride of the Hills and the white-laden Lowlands—
Mother of Mothers, we kneel unto you.

Ever the Legions of Sin will assail us,
Ever the Battle in Cities afar;
Still in the depths will thy Spirit eternal
Beckon us on like a piloting Star.
Down the dim years do thy dead children call thee,
Wafted to sleep while the Springtime was new;
We, of the Present, thy Hope of the Future—
Mother of Mothers, we pray unto you.

Dormitories.

Like everything else at the university, the dormitories had small beginnings. As soon as University Hall was ready for class-room work the old frame building which had been used for that purpose was turned over to students. About thirty or forty students stayed there and "kept bach," each securing his own provisions, cooking them and looking after his own room. As the rooms were large three or four generally clubbed together in this. The faculty exercised some supervisory control by sending one of their number occasionally to inspect.

In 1885 it was deemed better to have a superintendent on the ground and Professor Howell was designated to reside in the dormitory. A cook was now employed and a common mess hall instituted for all. The superintendent's powers were very much limited by the fact that the self-governing features were retained. To dismiss a boy from the dormitory required a two-thirds vote, in consequence it was difficult to maintain discipline. This system proving a failure, the superintendent was given dictatorial powers and the results justified the change. Professor Murfee succeeded Professor Howell, and, on becoming president, he was in turn succeeded by Professor Droke. After two or three years of service Professor Droke resigned, but was induced to take up the work again in 1894, being paid $30 a month in addition to his regular salary, but resigned again in November. The president solicited candidates for the position. Volunteers were slow in offering, but Professor Cole was finally induced to accept. After repeated efforts to keep up this system it was finally abandoned, apparently not because it was bad for the students, but because unpleasant for the member of the faculty

on whose shoulders the responsibility fell. More of the responsibility was thrown upon the matron and this system, with some modifications, has been followed ever since.

The students, not being altogether satisfied with their exclusion from the management, petitioned in 1901 for self-government. This was finally granted in providing for a committee of seniors to act with the matron in making rules, enforcing discipline, and in the purchase of supplies. For awhile the matron collected and disbursed the funds, but this was soon turned over to a student. The matron and the senior commitee were especially charged with the good order of the dormitories, and were authorized to inflict penalties ranging from fines to dismissal from the dormitory. The board at one time (1904) directed that the commandant should have general supervision, their intent being to place the dormitories on a military basis similar to that in vogue at West Point, but this does not seem to have been carried out. So far the senior committee and the matron have managed affairs in a reasonably satisfactory manner and have succeeded in giving board cheaper than could be obtained at private boarding houses. However, until recent years, no room rent whatever was charged, the student simply paying for his heat, lights and board. Now he pays $5.00 a year which goes into the repair fund. While something has been accomplished in cheapening board, the greatest problem, that of making a home, can not be said to have been fully solved.

When the girls' dormitory was erected the board of trustees authorized the president to designate as many as four of the lady teachers to board there, the intent being to make them share with the matron the responsibility for good discipline.

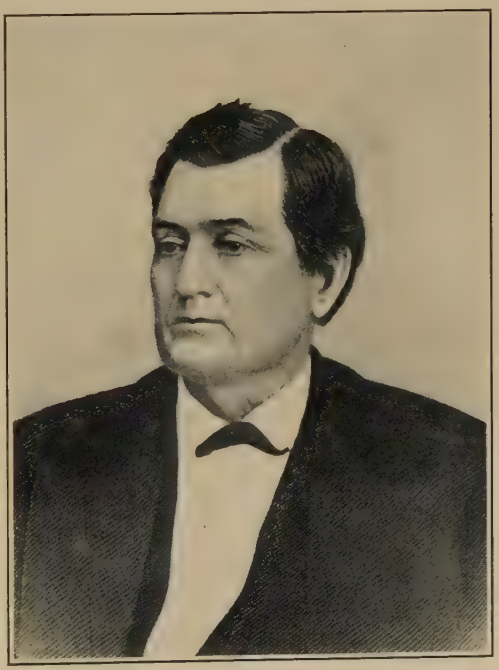
The accommodations were enlarged in 1888 by the erection of a new dormitory—since named Buchanan Hall—of Hill Hall in 1901 and Gray Hall in 1905-6. The accommodations now are sufficient for about 285. The applications are always in excess of the room available.

CHAPTER XXI.

SKETCHES OF TRUSTEES AND FACULTY.

I. TRUSTEES EX-OFFICIO.

Elisha Baxter was born in Rutherford County, North Carolina, September 1, 1827. He had few educational advantages. In 1848 he engaged in the mercantile business at Rutherford, North Carolina, but gave up his business in 1852 and came to Arkansas. In 1853 he and his brother opened a business at Batesville, Arkansas. This firm failed in 1855 and he entered a printing office. He soon left this and took up the study of law. He was admitted to the bar in 1856. In 1854 he was elected to the state legislature, and again in 1858. In 1859 he formed a law partnership with James Hinds, which continued until the opening of the Civil War. When the struggle came on he adhered to the cause of the Union, and for this reason he joined General Curtis at Jacksonport. He was offered a position as colonel in the first Arkansas regiment, but declined because of his southern birth. In 1863 he left Arkansas and went to Missouri, where he was made a prisoner by the Confederate cavalry. He was paroled by Colonel Newton and required to return to Arkansas and report to General Horner.



Elisha Baxter.

When he reported he was committed to jail for treason against the Confederacy, but he escaped. After this experience he cast his lot with the Union and raised a regiment which was known as the 4th Arkansas mounted infantry. He reported for duty and was placed in command of the post at Batesville. In 1864 he resigned his command in the regiment and was elected to the supreme court. After the close of the war he was elected to the United States Senate but was refused admission. He then returned to Batesville and resumed the practice of law in 1865. He continued his practice until 1868 when he was made register in bankruptcy of the first Congressional district. In the same year he was appointed judge of the third judicial district, which position he held until 1872, when he was elected governor of Arkansas. After serving one term he returned to Batesville and resumed the practice of law. The chief events of his administration were the increasing of the number of Congressional districts to five; creation of the counties of Baxter, Clayton, Garland, Faulkner, Lonoke, Howard, Dorsey, Lee, and Stone; a provision for a better system of public schools; and the Brooks-Baxter war. In 1849 Governor Baxter married Miss Harriet Patton in Rutherford County, North Carolina. There were born of this marriage six children, the eldest of whom was born in North Carolina, the others in Arkansas. Their names are Millard P., who became a merchant in Batesville; Edward A., a physician at Melbourne; Catharine M., who is the wife of Newton M. Alexander; George E., Hattie O., and Fannie E., the last of whom died in 1873, at the age of two years.

James Henderson Berry was born in Jackson County, Alabama, May 15, 1841, son of James M. and Isabella (Orr) Berry. In 1848 he came with his parents to Carroll County, Arkansas, and settled in the locality which took its name from the family and grew into the town of Berryville. His education was received in the country schools and the Berryville Academy where he spent ten months. He then clerked in a store for a while. At the outbreak of the Civil War he joined the 16th Arkansas infantry and was commissioned second lieutenant. At the battle of Corinth, Mississippi, he lost a leg. After the close of the war he taught school at Ozark, Arkansas, and studied law

whenever he could borrow a book. Without the help of any instructor he managed to procure license to practice in October, 1866. The same year he was elected to the legislature from Carroll County. Three years later he moved to Benton County and there formed a partnership with his brother-in-law, Samuel W. Peel, sometime member of Congress. In 1872 he was elected to represent Benton County in the legislature, was returned the following term and elected speaker of the house. In 1878 he was elected circuit judge and served four years, when he was elected governor of the State. After serving one term he was elected to fill the vacancy in the United States Senate caused by the resignation of A. H. Garland, who had become attorney-general in Cleveland's first cabinet. He took his seat March 25, 1885, and was re-elected in 1889, 1895 and 1901. He was defeated for re-election in 1907.

Thomas James Churchill was born on a farm near Louisville, Kentucky, March 10, 1824. He received his early education in the common schools of his native State, after which he entered St. Mary's College, from which he was graduated in 1844. After his graduation he took a graduate course in Transylvania University at Lexington, Kentucky. In 1846 he enlisted in the first Kentucky mounted riflemen and saw active service in the Mexican War. He was soon made lieutenant of his regiment. In 1847 he was made a prisoner and sent to the city of Mexico, but was exchanged. In 1848 he moved to

Thomas James Churchill.

Arkansas and devoted his attention to farming. In 1857 he was appointed postmaster at Little Rock by President Buchanan. He continued in this position until 1861. When the war between the states came on he was commissioned in the Confederate service and organized a regiment of cavalry which was known as the first Arkansas mounted riflemen. He later became a major-general in the service of the Confederacy. After the close of the war he returned to his farm. In 1874 he was elected state treasurer; he was reëlected to this position in 1876 and again in 1878. After having served three terms as state treasurer he was elected governor of the State. During his administration the insane asylum was established at Little Rock and the medical and normal departments were added to the state university. He was married to Miss Ann Sevier, July 1, 1849. One son and three daughters, all of whom survive, were born of this union. He died in 1905.

James P. Clarke, son of Walter and Ellen (White) Clarke, was born in Yazoo City, Mississippi, August 18, 1854. He received his early education in the public schools and academies of his native State. He then entered the University of Virginia, from which he graduated in law in 1878. After his graduation he came west and settled at Helena, Arkansas, where he began the practice of law. In 1886 he was eelcted to the state legislature and remained through the session of 1887. In 1888 he was elected to the state senate and served in this capacity for one term. During his term as senator he was elected president of the senate and ex-officio lieutenant governor. During the years 1893 and 1894 he was attorney-general of Arkansas. At the expiration of his term he was elected governor and served one term. He declined a second nomination, moved to Little Rock and resumed the practice of law. In 1903 he was elected to the United States senate, which position he now holds. He is now a member of the Democratic National Committee.

George Brinton Cook, son of Wylie and Delilah (Nickell) Cook, was born at White Oak, Kentucky, May 31, 1868. In 1870 the family moved to Johnson County, Missouri, in which vicinity he lived until

he went to Hot Springs, Arkansas, in 1891. He was educated in the public schools of Johnson County, and in Central College at Fayette, Missouri. After leaving school he entered the teaching profession and has filled many important positions. In 1891 he was elected superintendent of the city school of Hot Springs and county examiner for Garland County, which positions he held until 1908, when he was elected superintendent of public instruction of Arkansas.

George Brinton Cook.

He has been an active member of the National Educational Association for twenty-two years, and is a member of the National Educational Council, having been for a number of years vice-president of the association, chairman and secretary of the National Department of Superintendents. He was for four years secretary of the Southern Educational Association, and is a life member of the Arkansas State Teachers' Association, which he has served as president. He was secretary of the board on educational awards at the World's Fair, St. Louis, and is now a member of the Rhodes Scholarship examining board, chairman of the board of trustees of the Arkansas State Normal School, member of the executive committee of the board of trustees of the University of Arkansas, and advisory member of the state executive committee of the Arkansas agricultural schools. He has contributed to the press many articles and has delivered many addresses on educational subjects and has devoted much time and thought to the subject of school systems, supervision and courses for the purpose of developing and broadening

the school system of Arkansas. He was married to Miss Greta Chambers of Shreveport, Louisiana, on April 7, 1897. Two daughters, Katherin and Virginia, have been born of this union.

Joseph Carter Corbin was born March 26th, 1833, in Chillicothe, Ohio, son of William and Susan Corbin. In that day there were no public schools for colored children in Ohio, but the parents supported pay schools in the winter season, in which young Corbin went as far as the "single rule of three." He improved his education by diligent study at home, and, when about 16 years of age, entered a pay school in Louisville, Kentucky. This was before the war, and the school was composed of both free and slave children. During this time he saved up enough money to go to college, for which he was pretty well prepared, as he read Cæsar and Cicero readily and had studied mathematics as far as analytical geometry. He went to the Ohio University at Athens and graduated from that institution in 1853. In order to finish paying for his education he obtained a position as clearing-house clerk in the Bank of the Ohio Valley, Cincinnati, Ohio. Coming to Arkansas, he was employed as a reporter by the "Arkansas Republican" for several years and was afterwards employed as money-order clerk in the Little Rock postoffice. About this time he received the degrees of A. M. and Ph. D. from his alma mater.

Joseph Carter Corbin.

In 1873 he was elected superintendent of public instruction and served until the close of the Brooks-Baxter war, after which he taught for two years in the Lincoln Institute, Jefferson City, Missouri. Returning to Arkansas he was on August 18, 1875, elected principal of the Branch Normal College, Pine Bluff, which position he held for about 30 years. During this time all the buildings for the institution were erected and a library, physical apparatus and machinery were purchased. The contract for the main building of the university was also let and the building erected while he held the office of state superintendent.

He is a 33d degree Mason, and was twenty-five years secretary of the colored Freemasons of Arkansas, and also served one term as Grand Master. His reports upon foreign correspondence have attracted much attention. He is a mathematician and has contributed many articles to the mathematical journals. He is also well acquainted with six or eight foreign languages. He has done a great deal of work in holding teachers' institutes in Arkansas and Oklahoma. He is an accomplished musician and a performer upon several instruments. At present he is principal of the Merrill Public School, Pine Bluff, Arkansas. September 11, 1866, he married Miss Mary J. Ward, a native of Kentucky, in Cincinnati, Ohio. Six children were born of this union, of whom only two survive.

Jefferson Davis, son of Lewis A. and Elizabeth Davis, was born near Richmond, in Little River County, Arkansas, on May 6, 1862. When he was seven years of age his parents moved to Russellville in Pope County, where he grew to manhood. Mr. Davis received his education in the common schools of Arkansas and at the state university. He left the university before finishing his literary course and entered the law department at Vanderbilt University, and was admitted to practice at the age of nineteen. He began the practice of law at Russellville. His practice soon extended through the fifth judicial district. In 1893 he was elected prosecuting attorney of his district and served four years. In 1899 he was elected attorney-general of the

Jefferson Davis.

state and served in this capacity for two years. In September, 1900, he was elected governor of Arkansas. He took the oath of office as governor January 18, 1901. In 1902 he was again elected governor. He was reëlected governor in 1904 for the third term. During the six years that he served as governor, by virtue of his office he was president of the board of trustees of the University of Arkansas. He was elected to the United States senate and took his seat March 4, 1907, as successor of James H. Berry. He was married in 1882 to Miss Ina McKenzie. Of this union twelve children were born, eight of whom are still living.

George Washington Donaghey, son of Columbus C. and Elizabeth (Ingram) Donaghey, was born in Oakland, Louisiana, on July 1, 1856. His parents moved to Arkansas while he was yet an infant, and his life has practically all been spent in Arkansas. His early life was spent on a farm in Union County, Arkansas. The period was just after the Civil War, and his parents, like the majority of their neighbors, were very poor. As soon as he was large enough to work in the field, he made a full hand on his father's farm. His chances for education were meager, and at the age of sixteen he had secured only such education as would enable him merely to read and write.

He left home at sixteen to shift for himself. He worked on a farm in Texas at $12.50 per month and board and lodging. He also

worked as a section hand on the railroad, and managed to go to the free schools for a short period during the summer and winter months. He moved to Conway, Arkansas, in 1874 and there learned the carpenter's trade and worked for several years as a journeyman carpenter until he had saved enough money to go to the University of Arkansas for a short time. He took no degree. His chief training was found in the school of experience. In this school he studied architecture and structural engineering until he became proficient in both.

George Washington Donaghey.

From the carpenter's trade he drifted into general contracting. As a contractor he has built many buildings in Arkansas, Louisiana, Texas and Oklahoma, including six of the buildings at the University of Arkansas and the courthouse at Fayetteville. He was successful as a contractor from the start, and after a few years had a competency and sufficient capital to operate on a large scale. He now owns considerable property in Arkansas and Oklahoma and is a stockholder and officer in several Arkansas banks. As a business man he stands high.

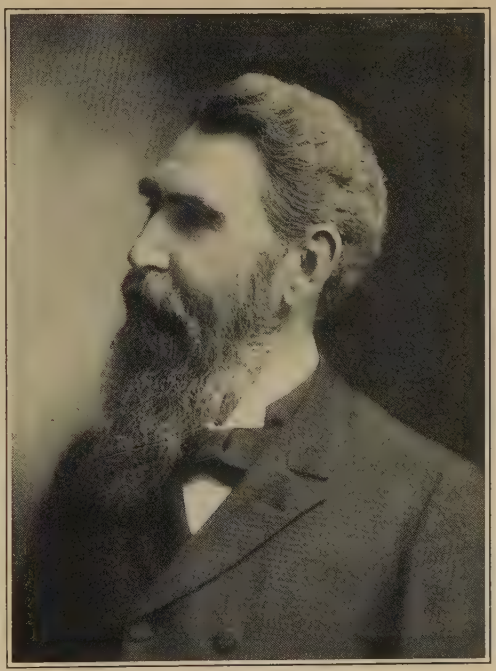
He was elected Democratic governor of Arkansas in September, 1908, which position he now holds. He was married in 1883 to Miss Louvenia Wallace. He is a member of the Methodist Church and member of the board of trustees of Hendrix College, to which institution he has made several gifts.

John James Doyne was born at Farmville, Virginia, October 28, 1858. He received his early training in the public school of his native town, after which he graduated from the high school there. He then took a three-years' course in the University of Virginia, devoting time specially to the study of the Latin, Greek, French, German and Spanish languages. He came to Arkansas in July, 1879, and began teaching that fall in the Lonoke public school. He taught at Lonoke until 1880, when he moved to Fort Smith and taught there two years. He then returned to Lonoke and taught there eight years. He was county examiner of Lonoke County for fourteen years, and examiner of the Fort Smith district of Sebastian County about two years. He was elected superintendent of public instruction in 1898 and served four years. He served as deputy superintendent under J. H. Hinemon for a year and a half. He was re-elected superintendent in 1906 and served until 1908 when he resigned to accept the presidency of the Arkansas State Normal. He is a member of the N. E. A. and belongs to the executive council; he is also a member of the S. E. A.; and for thirty years has been a member of the Arkansas State Teachers' Association. He is at present a member of the Arkansas Historical Association. By virtue of his position as state superintendent he was a member of the board of trustees of the University of Arkansas from 1906 to 1908. He was married to Miss Ida M. Beard in November, 1882. Three children were born to them.

John James Doyne.

One son, Russell, who is a student in the medical school of the University of Arkansas, survives.

James Phillip Eagle, son of James and Charity Eagle, was born in Maury County, Tennessee, August 10, 1837. Both of his parents were natives of North Carolina. In 1839 they moved to Pulaski County, Arkansas, and five years later made their home at Military Road. In 1857 they moved to Lonoke. Governor Eagle began his career as a public servant in 1859, when he was appointed deputy sheriff of Lonoke County by Sheriff King. When the war between the states came on he enlisted as a private in McIntosh's regiment. He soon rose to the rank of lieutenant and then captain, after which he was made major, and in 1865 he had risen to the rank of lieutenant-colonel. In his early youth his educational advantages were few, but after the close of the war he resumed his education. In 1869 he entered school at Lonoke. During the time previous to 1869 he had pursued his studies privately. During the year 1870-71 he attended the Mississippi College, but was compelled to return home because of poor health. From childhood he had been a farmer, but a part of his time was spent in preaching. He was president of the Baptist State Convention for eight years. In 1873 he was elected to the state legislature and served in the extra session of 1874. He was a member of the constitutional convention of 1874.



James Phillip Eagle.

In 1876 he was again elected to the legislature, and again in 1884, when he was made speaker of the house. He was elected governor in 1888, and served two terms. One of the chief acts of the legislature during his administration was the increasing of the number of judges on the supreme bench to five. He was married at Richmond, Kentucky, to Miss Mary Kavanaugh Oldham on January 3, 1882. He died December 19, 1904.

William Meade Fishback was born at Jefferson, in Culpepper County, Virginia, November 5, 1831. He was educated at the University of Virginia. After leaving college he taught school and read law. In 1857 he left Richmond, Virginia, and came west. During the year 1858 he remained in Illinois prospecting for a location to practice law. Here he met Abraham Lincoln, who became his first client. In the latter part of 1858 he came to Fort Smith, but remained here only one month; he then went to Greenwood and began the practice of law. Judge S. F. Clark offered him a partnership and they enjoyed a large practice until the outbreak of war. In 1861 he was elected as a Union man to the secession convention. When the Civil War broke out he went north, but returned in 1864 and engaged in editing a paper at Little Rock. The paper was known as the "Unconditional Union." He was elected to the United States senate in 1864, but was refused a seat. In 1865

William Meade Fishback.

President Johnson appointed him treasury agent at Little Rock. He was an efficient and honest official. In 1872 he probably was elected to the legislature from Sabastian County, but was deprived of his seat. In 1874 he was elected to the constitutional convention which gave to Arkansas her present constitution. He was elected to the legislature in 1876, and again in 1878 and 1884. He ran for Congress in 1885, but was defeated and again suffered a like fate in his race for the governorship three years later. However, he was elected governor in 1892 and served one term. He is the author of the amendment to the constitution which repudiated a considerable amount of the State's debt, and stumped the State in its behalf.

Augustus Hill Garland was born in Tipton County, Tennessee, June 11, 1832. His parents came to Hempstead County, Arkansas, in 1833. His father died soon after they came to Arkansas. His mother was his first teacher and it was from her that he received his early education. He then went to St. Mary's College and later to St. Joseph's College, Kentucky. After completing his college education he studied law and was admitted to the bar in 1853. He practiced law at Washington, Arkansas, until 1856, when he moved to Little Rock and formed a partnership with Ebenezer Cummings. This partnership continued until the death of Mr. Cummings in 1857. He was a delegate to the state convention in 1861 and took

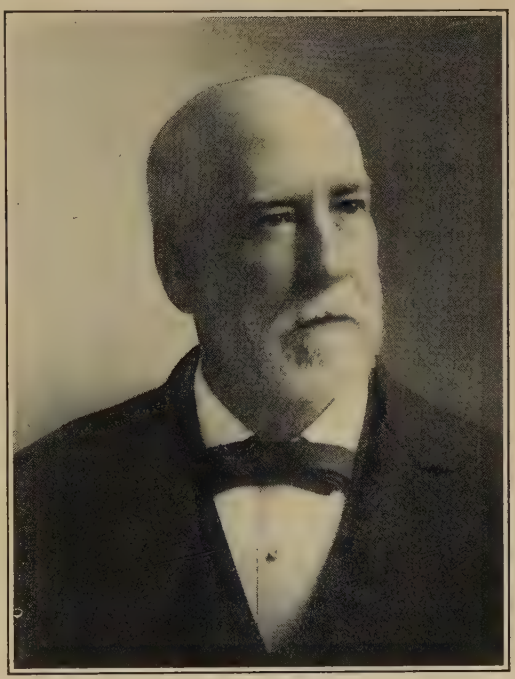
Augustus Hill Garland.

a leading part among the conservatives in opposing and preventing radical action at the first session. But when war became inevitable, he reluctantly yielded and voted for secession. After Arkansas had seceded he was made a member of the provisional Congress of the Southern Confederacy in 1861. He subsequently served as representative and senator in the Confederate Congress and was a member of the senate when the war closed. In 1865 President Johnson pardoned him and he resumed the practice of law in Little Rock.

Before the war Mr. Garland had been admitted to practice before the Supreme Court of the United States. By act of January 24, 1865, Congress prohibited attorneys from practicing in the federal courts without having subscribed to the so-called iron-clad oath and made this applicable to those who had already been admitted. Mr. Garland, who could not take the oath without perjuring himself, now attacked the act as unconstitutional on the ground that it was an ex post facto law in so far as it related to those who had already been admitted to practice; and if constitutional, he was released from its penalties by the pardon of President Johnson. Mr. Garland filed briefs in his own behalf with the supreme court, but was also assisted by some of the ablest counsel in the country. He was opposed by men of equal talent, but the result was a decision in his favor.

In 1867 he was elected to the United States Congress, but was refused a seat. He then returned to Arkansas and resumed the practice of law. In 1874, when Mr. Brooks expelled Governor Baxter and seized the state house, Mr. Garland espoused the governor's cause and was appointed deputy secretary of state. The same year he was elected governor of Arkansas and served one term. When his term as governor expired he was elected to the United States senate in 1877. At the expiration of his first term he was reëlected in 1883. He enjoyed the distinction of being one of the great constitutional lawyers in the senate. In 1885 President Cleveland appointed him attorney-general of the United States. He is the first man from Arkansas who served in a President's cabinet. He retired from public life in 1889 and located in Washington City, where he practiced law until his death in 1899. He was married to Miss Virginia Sanders. Of this union three sons and one daughter were born.

Simon P. Hughes was born in Smith County, Tennessee, April 14, 1830. His parents came to Arkansas when he was fourteen years old. Two years after they came to Arkansas he returned to Tennessee to attend school. He attended Sylvan Academy during the year 1846-47 and in 1848-49 he was a student at Clinton College. He returned to Arkansas in 1849 and was thrown upon his own resources. He engaged in farming in 1849 and continued in this business until 1854, when he took up the study of law. He was elected sheriff of Monroe County in 1854 and served until 1856. In 1857 he was admitted to the bar and began the practice of law at Clarendon. When the war between the states came on, he enlisted in the infantry regiment of Colonel Charles W. Adams. He was made captain of his company and later lieutenant-colonel of the regiment. He then entered the cavalry as a private and served in Morgan's Texas battalion until the close of the war. He was elected to the house of representatives in 1866-67, and served during the session of 1866-67. He was made attorney-general of Arkansas in 1874 and moved to Little Rock. In the same year he was elected to the constitutional convention which gave Arkansas her present constitution. He resumed the practice of law in 1876 and continued this until 1884, when he was elected governor of the State. He was reëlected in 1886. In 1889 he was



Simon P. Hughes.

made an associate justice of the supreme court of Arkansas. He was married to Miss Anna E. Blakemore in 1857. Of this union four sons and two daughters were born.

Daniel W. Jones was born in Bowie County, Texas, December 15, 1839. When he was a small child his parents moved to Arkansas, and he received his early education in the public schools of his adopted state. He later attended the academy of B. J. Borden. He began the study of law in 1861 under the direction of Honorable John R. Eakin. He continued his study for only one year, when he enlisted in Gratiot's regiment. He later enlisted in the 20th Arkansas infantry and became colonel. He was wounded in the battle of Corinth and was made a prisoner after the fall of Vicksburg. After the war closed he began the practice of law at Washington, Arkansas. In 1874 he was elected prosecuting attorney for the 9th circuit, which position he held until 1876. He resumed the practice of law and continued therein until 1884, when he was elected attorney-general of Arkansas. He was reëlected in 1886. He was elected governor of Arkansas in 1896 and served four years, being reëlected in 1898. He was married to Miss Maggie R. Hadley on February 9, 1864. Of this union three sons and two daughters were born. He is now practicing law in Little Rock.

John Sebastian Little was born at Jenny Lind, Sebastian County, Arkansas, March 15, 1851. He received his early education in the common schools and at Cane Hill College. He grew to manhood on the farm and remained there until 1872, when he engaged in teaching. He followed this profession three terms. At the time he commenced teaching he began also the study of law, his preceptor being Judge C. B. Neal. In 1873 he was admitted to the bar at Greenwood and soon afterward located at Paris, Logan County, Arkansas, where he engaged in the general practice of law until May, 1877, when he was elected prosecuting attorney for the twelfth judicial circuit. He was

reëlected in 1878, 1880 and 1882, serving in all eight years. In 1884 he was elected to the state legislature and served on the committee on judiciary, and was chairman of the committee on county and probate affairs.

In 1886 he was elected circuit judge for a term of four years; in 1893 was chosen as chairman of the state judicial convention; in September, 1894, was elected without opposition to fill the unexpired term of C. R. Breckenridge in 53d Congress; was elected to the 54th, 55th, 56th, 57th, 58th Congresses and was reëlected to the 59th Congress, but resigned December 13th, 1906, to take effect January 14, 1907, to accept the office of governor of Arkansas, to which position he had been elected in September, 1906, by one of the largest majorities that was ever recorded in the history of the Democratic party in the State. He was inaugurated as governor in January, 1906, but only acted as governor the following Saturday and Sunday. He was stricken down by the hand of affliction on Monday and never again became able to resume the duties of his office during his whole term. He was married to Miss Elizabeth Irwin in January, 1877.

William Reed Miller, twenty-first governor of the State of Arkansas, was born in Independence County, Arkansas, November 27, 1823. His father, John Miller, was one of the pioneers in the territory of Arkansas and contributed largely by the force of his intellect and personality to the founding of the State. His mother was noted as a woman of intelligence and loftiness of character. Though reared in such luxury as the then frontier afforded, yet his character was tempered by the privations of pioneer life. His school training was necessarily limited, yet by industry he acquired a practical education.

He lived in the public view from early manhood and exerted an terms and the larger part of a third term, until in 1854 he was elected clerk of Independence County in 1848, serving through two terms and the larger part of a third term, until in 1854 he was appointed by the governor to fill the vacancy caused by the death of the state auditor. During the years 1855 and 1856 he filled the office of accountant of the Real Estate Bank. In 1856 he was elected

auditor of state and was reëlected in 1858, 1860, 1862 and 1864, but did not fill the fifth term, being declared ineligible on account of his part in the establishment of the government of the Confederate States. The law was his profession, but his career as a lawyer was frequently interrupted by his election to various offices of public trust. The recovery of control of the State by the Democrats in 1874 replaced him in the position of auditor, where he served for one term until January, 1877, when he was inaugurated governor of Arkansas. He enjoys the distinction of being the first native governor of his State. His administration was marked chiefly by the rapid recovery of the people from the disturbances and discouragements caused by the war between the states, and by the steady progress in the development of the material resources of the State. It was disturbed by a few attempts at lawlessness. At this time the movement for the settlement of the state debt by a plan subsequently adopted in an amendment to the constitution came into prominence. Against this movement he threw the weight of his influence, taking the high ground that the State is bound by her obligations which have passed into innocent hands, although she may not have received full value for them, and that any plan for the adjustment of her debts should include all of her obligations.

He was married January 31, 1849, to Miss Susan E. Bevens, daughter of Judge William C. Bevens of Batesville, Arkansas. Of this union five daughters and two sons were born. He died November 27, 1887, while again occupying the position of auditor of state, to which he had been elected in his declining years, as a mark of esteem and confidence of his people.

Thomas Smith was born in Cincinnati, Ohio, his father being of Scotch and his mother of English descent. He spent the early part of his life in his native city and at Paducah, Kentucky. Later he settled at Little Rock, Arkansas, as a surgeon in the Union army in 1864. He was elected state superintendent of public instruction in 1868, and served until 1873. When he attempted to organize the public school system under the new law grave difficulties confronted him. The people were prejudiced against the government and there

was no money, the State being on a scrip basis. He secured the first systematic enumeration of the children of the State. Mr. Smith was ex-officio chairman of the board of trustees of the University of Arkansas from the organization of the board in 1871 until he went out of office in 1873. He was married three times.

II. TRUSTEES BY APPOINTMENT.

John Emory Bennett, son of James and Abbie Bennett, was born at Bethany, Genesee County, New York, March 18, 1833. He was reared on a farm and attended the district school until he was sixteen years of age, at which time he entered Lima College, where he remained for three years. After two more years spent on the farm he accepted a clerkship at Cleveland, Ohio, where he remained a year and a half. He then moved to Morrison, Illinois. Mr. Bennett was the first postmaster of Morrison, and, as one of the early settlers, was largely instrumental in having the county seat moved from Sterling to that place. He continued his residence at Morrison until the breaking out of the Civil War. In the meantime he had spent several years in the study of law in the office of Charles Johnson, a local attorney.

In the year 1862 he organized a company of volunteers which was mustered in as company C of the 75th regiment, Illinois infantry volunteers. In the organization of the regiment April 23, 1863, Mr. Bennett was elected colonel. He made an efficient officer and led his regiment with credit through twenty-two regular engagements. April 6, 1865, Colonel Bennett was breveted brigadier-general and given command of the third brigade first division under General Sherman. He was mustered out June 12, 1865, and reëntered the service as second lieutenant of the 19th infantry on the 23d of February, 1866. He was transferred to the 28th infantry on September 21, 1866, and on March 2, 1867, was made brevet captain for gallant and meritorious service in the battle of Lookout Mountain, major for gallant and meritorious service in the battle at Franklin, Tennessee, lieutenant-colonel for gallant and meritorious service in the battle at Nashville, Tennessee. Colonel Bennett resigned from the army August 8, 1868, and entered the practice of law at Little Rock. Here

he received a federal appointment as judge of the circuit court with headquarters at Helena, Arkansas. Judge Bennett served one term, when in 1871 he was appointed to membership on the supreme court of the State. He remained on the bench until the revolution of 1874 transferred the state government to the Democrats. Judge Bennett became interested in business at Helena and built three cotton-seed oil mills in the State. He moved from Arkansas to South Dakota about 1880 and located at Clark, in that state, where he engaged in farming. He was a delegate to the National Republican Convention in Chicago in 1884 and was there chosen as National Republican Committeeman for South Dakota. He was president of the Huron convention which drafted a constitution. In 1885 he was elected judge of the supreme court of South Dakota in the provisional statehood movement, and, when the State was finally admitted in 1889, was reëlected to that position, serving with great credit until the time of his death on the 31st of December, 1893. In November, previous to his death, he had been reëlected for another term. April 11, 1854, Mr. Bennett married Marium L. Kendall. One son was born of this union.

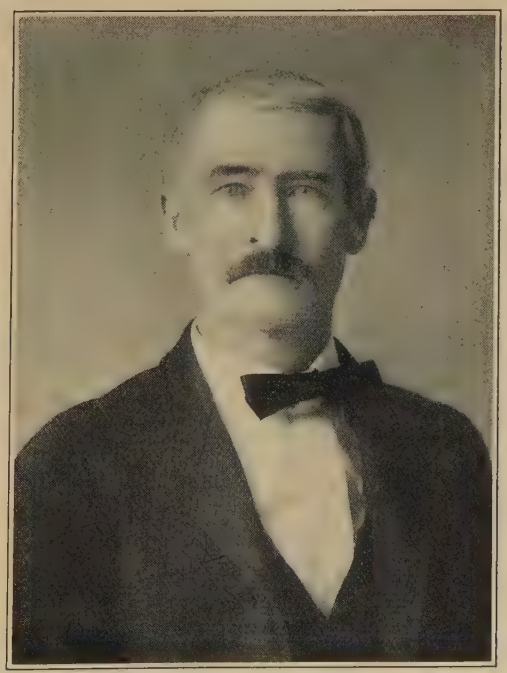
John T. Bearden.

John T. Bearden was born in Knoxville, Tennessee, August 18, 1826. He received his education at a college in Knoxville and then studied law under Judge Horace Maynard, who was afterward minister to Turkey. He was admitted to the bar before he was twenty-one years old. In 1847 he came to Arkansas and settled in Camden where he

resumed the practice of law. He was judge of the ninth circuit from September, 1866, to July, 1868, when he was removed. He was a member of the house of representatives in 1852 and 1879. In the session of 1879 he served as speaker.

On the outbreak of the Civil War he enlisted in the Confederate army and served as adjutant-general in General A. T. Hawthorne's brigade of Churchill's division. By appointment in 1874 he served for one year as associate justice of the supreme court. He belonged to the orders of Masons and Odd Fellows. He was a trustee of the university from 1883 to 1886, when he resigned. In 1860 he married Mrs. Frances Stith. To this union were born three daughters, one of whom died in childhood and the other two are now living in Los Angeles, to which place he had moved in 1886.

Benjamin Clayton Black was born in Rutherford County, Tennessee, November 2, 1842. When a small boy he emigrated with his parents from Rutherford County to Haywood County, west Tennessee. At the age of fifteen years he moved to White County, Arkansas, with his father, his mother having died when he was nine years of age. His education was received in the common schools of the country, except for one term spent in a boarding school. He was a clerk in a wholesale grocery store in Searcy at the breaking out of the Civil War. At the age of eighteen he enlisted in Captain John McCauley's company of infantry, C. S. A., which was



Benjamin Clayton Black.

known as company A and was attached to the 7th Arkansas regiment of infantry, under command of Colonel Bob Shaver. While at Bowling Green, Kentucky, he had a long spell of sickness, in consequence of which he was discharged from the army. After returning to his relatives and friends at Searcy and remaining for a few months he reënlisted by joining Captain Will Hicks' company of cavalry and was on detached service for several months. Afterwards the company was attached to the 32d Arkansas regiment, said to be the last volunteer regiment raised in the State. He was in all the engagements of that command until after the federals captured Little Rock. After this he was commissioned to raise a company, of which he was elected captain. He was on detached service with this company until the brigade was organized, after which his company was joined to the 48th Arkansas cavalry regiment and united to McRae's brigade. He was on General Sterling Price's raid into Missouri. After the raid he was ordered, with his company, to surrender, which he did at Searcy, Arkansas, in March, 1865.

In the winter of 1866 he engaged in the mercantile business at Searcy and continued in business until 1878. He was then elected sheriff of White County and held the office for eight years. He was appointed postmaster at Searcy by President Cleveland during his first term. After serving a four-year term in that capacity he reëntered the mercantile business and remained in it until his death, which occurred November 27, 1906. He served as mayor of his home town several terms and was chairman of the Democratic central committee of his county and congressional district. He was appointed as a member of board of trustees of the University of Arkansas in 1891 by Governor Eagle and served a full term of six years. He was married to Miss Molly Jones, March 1, 1866. Eleven children were born of this union.

James William Brown, son of William and Mary (Leake) Brown, was born May 12, 1835, in Lawrence District, South Carolina. He received his early education in his native state. He then entered the medical college at Augusta, Georgia, from which he graduated in

James William Brown.

1858. He came to Ouachita County, Arkansas, in the same year and identified himself with the interests of that county. When the war broke out Dr. Brown enlisted in the Confederate army. After the war he entered business and became one of the most prominent business men of the section of the State in which he lived, and held many responsible positions. He was vice- president of the Ouachita Valley Bank and president of the South Arkansas Lumber Company. He was a member of the public school board of Camden, Arkansas, a member of the board of trustees of Hendrix and Henderson-Colleges, and of the University of Arkansas. He was married to Miss Annie Estelle Hatley in 1866. Five children, four of whom survive, were born of this union. Dr. Brown died September 21, 1904.

George Thomas Breckenridge was born in Green County, Arkansas, April 1, 1870, son of James H. and Mary A. Breckenridge, who were of Scotch-English descent. Their ancestors left Scotland during the reign of Charles II. on account of the religious persecutions of that period and settled in Virginia. George T. Breckenridge's father and mother were pioneer settlers in Green County, Arkansas, and his mother is still living there. Mr. Breckenridge attended the common schools of Green County, after which he attended the Thompson Classical Institute of Paragould for six years. He was awarded a medal on oratory and one for general excellence. This constituted the

George Thomas Breckenridge.

whole of his scholastic training. He was elected circuit clerk of Green County in 1898, which position he held for two terms. He then entered the land and abstract business, in which he remained until the year 1907, when he organized the Breckenridge Mercantile Company of Paragould. He entered the mill and ginning business in 1909, in which he is engaged at the present. Mr. Breckenridge is at present supervisor of the census for the first district of Arkansas, and a member of the board of trustees of the University of Arkansas. He was married January 9, 1901, to Miss Mary C. Loretz. Of this union four daughters were born, Ina Euther, Mary Caroline, Martha Alice and Harriet Elizabeth.

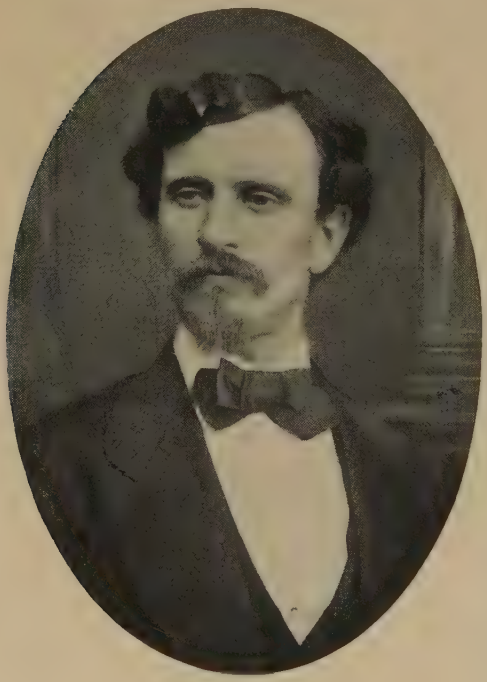
Henry Gaston Bunn, son of David and Elizabeth Bunn, was born near Rocky Mount, Nash County, North Carolina, June 12, 1838. In 1844 the family moved to Fayette County, Tennessee, and two years later came to Arkansas, settling in Calhoun County. There Henry Bunn attended the county schools until sent to Davidson College, North Carolina, to complete his education. He was a member of the Eumenean Society and was ever an advocate of Greek letter fraternities. In 1861 he returned to his Arkansas home and aided in raising a company which with others united in forming the 4th Arkansas regiment under command of Colonel E. McNair. He was first elected a lieutenant in this company and then appointed adjutant.

Henry Gaston Bunn.

He served throughout the war, coming out with the rank of colonel. After the war he studied law and was admitted to the bar in 1866.

From 1873 to 1874 he served as state senator and was a delegate to the constitutional convention in 1874, in which he was chairman of the committee on bill of rights and a member of the judiciary committee. He also acted as special judge on the supreme and circuit bench, and for a number of years was president of the State Bar Association. In May, 1893, he was appointed by Governor Fishback to fill the vacancy caused by the death of Chief Justice Cockrill, and in 1896 was nominated by the Democratic state convention and elected in September of that year to the full term of eight years. He was appointed as a trustee for the University of Arkansas in 1893 and served in this capacity for eight years. In 1904 he took up the private practice of law, in partnership with Mr. W. E. Patterson, at El Dorado, Union County, which he continued until his death, July 17, 1908. He was a member of the Presbyterian Church. He was twice married, first, in December, 1865, to Miss Louisa F. Holmes, who died ten months later; in 1869 he was married to Miss Aralee Connolly. Nine children, five of whom survive, were born of this union.

John Middleton Clayton was born October 13, 1840, in Delaware County, Pennsylvania, one of a family of ten children, only two of whom are now living, William H. H. Clayton, his twin brother, of McAlester, Oklahoma, and Powell Clayton of Eureka Springs, Arkansas. When the Civil War broke out he enlisted in the Union army and was first sergeant in company H, 124th Pennsylvania volunteers, and took part in the battles of South Mountain, Antietam and Chancellorsville.



John Middleton Clayton.

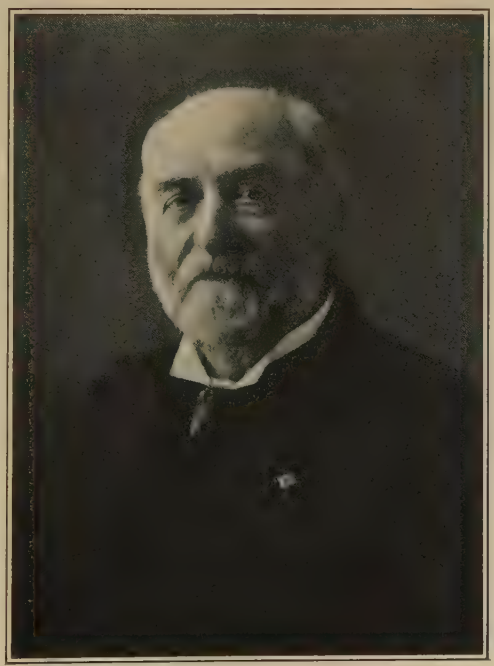
In 1866 he removed to Arkansas with his family and resided on a cotton plantation on the Arkansas River in Jefferson County, about fifteen miles below Pine Bluff. While residing here he served a term in the Arkansas legislature in 1871, as a member of the house of representatives, and in 1873 he was elected a member of the senate, part of the time being president of that body. In 1876 he was elected sheriff of Jefferson County and moved to Pine Bluff, where he continued to reside until his death. He continued to hold the office of sheriff until 1886. In the summer of 1888 he entered the practice of law in Pine Bluff as the junior partner in the firm of Hemingway, Austin & Clayton, his partners being Judge W. E. Hemingway and Mr. M. A. Austin of Pine Bluff.

In the federal election in the fall of 1888 he made the race on the Republican ticket against C. R. Breckenridge for Congress in the second Congressional district. The returns showed Mr. Breckenridge

to be elected by 848 majority out of a total vote of 34,868, and he then instituted a contest for the office. On January 29, 1889, while taking evidence in this contest, he was murdered in Plummerville by some one whose name has never been divulged. He was buried in the cemetery in Pine Bluff by the side of his wife, who had died about the year 1884.

When the University of Arkansas was established he was appointed a member of the first board of trustees and served from 1871 to 1874. He was married to Miss Sarah Ann Zebley, of New Castle County, Delaware, on November 2, 1865. Eight children, six of whom survive, were born. The names of the surviving children are Emma, now Mrs. W. D. Jones, of Pine Bluff; Margaret Ann, now Mrs. H. S. Dukes, of Hemet, California; William H., Powell and John Middleton.

Charles Coffin was born at Rogersville, Hawkins County, Tennessee, April 23, 1842, son of Charles Hector and Eliza Coffin. His parents moved to Knoxville, Tenn., in 1847, where Charles spent his boyhood. His paternal grandfather, Rev. Charles Coffin, D. D., moved from Newburyport, Massachusetts, to Greenville, Tennessee, in 1804 and served as president of Greenville College from 1806 to 1827 and of the East Tennessee College at Knoxville from 1827 until 1832. After attending the private schools of Knoxville, Charles matriculated as a freshman at East Tennessee University, now University of Tennessee, at Knoxville. From



Charles Coffin.

there he went to Princeton College and entered the junior class. He was elected junior orator to represent "Whig Hall" in an oratorical contest at commencement, but the Civil War coming on, he left Princeton before the end of the year.

August 10, 1861, he enlisted in the Confederate army, joining a cavalry company commanded by Captain Ben M. Branner. Later, while serving under Colonel Henry M. Ashby, he was appointed sergeant-major of the regiment and served in that capacity until the end of the war, frequently acting as adjutant.

After the surrender he was indicted for treason in the United States court at Knoxville, but was pardoned by President Andrew Johnson upon payment of the costs, $40.40. He remained in east Tennessee and prosecuted the study of law until December, when he had some trouble with his eyes, upon which he discontinued his studies and went to Memphis, Tennessee, where he engaged in merchandising until 1869. Then, with his brothers, James P. and Hector Coffin, he located at Clover Bend, Lawrence County, Arkansas, and for two years conducted a mercantile business on the credit basis, with unsuccessful results. He then taught school in Pocahontas, Randolph County, in 1873, and in August of that year began editing a newspaper at that place. He also continued his law studies. During that period the "Brooks-Baxter War" transpired in Arkansas. He was elected to the legislature to fill a vacancy in November, 1873, and served in the extraordinary session of that body during the said war.

At the September (1874) term of the circuit court for Randolph County, he was licensed to practice law. Some years later he was granted a license to practice in the supreme court, and still later in the federal courts. From January 8 to November 18, 1876, he was the principal editorial writer on the "Arkansas Gazette" at Little Rock. Returning to Lawrence County, he located at Walnut Ridge, where he had begun the practice of law. In 1878 he was elected prosecuting attorney for the 3d judicial district, and was reëlected in 1880, serving two terms. In 1888 he was again elected to the house of representatives in the state legislature and served through the term.

In 1883 he was appointed by Governor James H. Berry as a member of the board of trustees for the state university. He was

reappointed to that board in 1885 by Governor S. P. Hughes, and served until the legislature of 1887 reorganized the university by a liberal appropriation establishing the agricultural and mechanical departments. In 1896 he was a delegate from the 1st Congressional district to the national convention of the Democratic party, which met at Chicago and nominated Mr. W. J. Bryan for President. He was Grand Dictator of the Knights of Honor for Arkansas for three terms.

Mathias Abraham Cohn was born in Hildesheim, Germany, May 29, 1823, son of Abraham and Doris Cohn. He was educated at the schools in the vicinity of Bremen and received private instruction in English. He came to the United States before the Civil War. About 1868 he moved from Memphis, Tennessee, to Augusta, Arkansas, and lived there until about 1873, removing from there to Little Rock, where he remained until his death. He was elected to the house of representatives from Woodruff County in the session of 1871 and took an active part in the affairs of those stirring times. In 1872 he was appointed to the office of superintendent of schools for the second circuit of the State. He became a member of the first board of trustees of the university and his associates elected him secretary. He gave a great deal of time and attention to this work and assisted in the organization of the university. He retired from the board of trustees in 1873. Then he moved to Little Rock, and there in 1876 he

Mathias Abraham Cohn.

began the practice of law. At Little Rock he was an active member of his church and held the presidency of the congregation of the Jewish Temple for a number of years and the congregation made strides toward greater influence under his administration. He had a law passed whereby a Jewish minister could perform the marriage service the same as other ministers, a thing which prior to that time had not been possible. In 1890 he retired from the practice of the law after a period of thirteen or fourteen years of active and successful practice, and lived thereafter a quiet and retired life. His later years were devoted to good purposes and he took an active part in religious services on the Jewish holidays. He was stricken with paralysis while assisting on one of these occasions, and from this attack he never fully recovered.

He was also a Mason and in the fifties was active in the cause, obtaining the highest offices within the gift of his fellows, in New Albany, Indiana, where he then lived.

He was married to Miss Therese Koebner March 14, 1848. Of this union eight children were born, of whom all survive. He died at his home in Little Rock, February 5, 1901.

Virgil Y. Cook, son of William D. and Pernecia (Dodds) Cook, was born in Boydville, Graves County, Kentucky, November 14, 1848. Both parents were born in Caldwell County, Kentucky. His father was a successful tobacconist and general merchant for many years. John Cook and John Craig Dodds, grandparents, were native Kentuckians, being merchant and planter, respectively, and both were soldiers in the war of 1812, participating with the Kentucky troops in the Northwestern Territory and Canadian campaigns, 1812 and 1813, and in Jackson's New Orleans campaign, 1814-15, including the battle at the latter place. Both were line officers. His great-grandfathers were continental soldiers in the Revolutionary War, serving in Virginia and South Carolina respectively.

Virgil Y. was educated in the subscription schools of his native town and at Spring Hill Academy, Henry County, Tennessee. He entered the Confederate army in July, 1863, before he was fifteen years

of age, in the Kentucky brigade of Forrest's cavalry, serving in the ranks and as staff courier. He participated in the battles and campaigns of that command, and was paroled May 16, 1865. He enjoys a distinction perhaps that few, if any other private soldier in either army enjoys, that of having his former company, with which he had served some eight months, and from which he had recently been transferred to a different company and regiment, pass him at "Present Arms" while he was serving out-post picket duty.

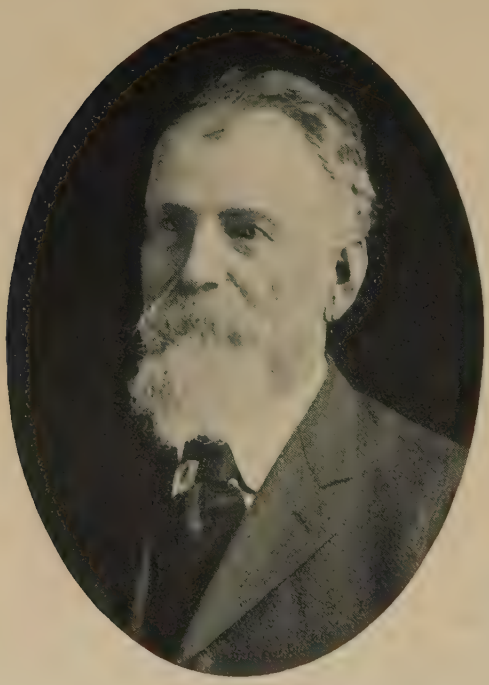
He attended school one year after the Civil War, taking an academic course. He came to Arkansas in June, 1866, and engaged in mercantile pursuits at Grand Glaize, Jackson County, on lower White River. In 1874 he founded the town of Olyphant on the St. Louis and Southern Railway, in Jackson County, where he continued to conduct a general mercantile house. In 1884 he removed to Oil Trough Valley in Independence County, where he continued his mercantile business. Here he acquired several plantations, aggregating 3,500 acres in cultivation and engaged in the cultivation of cotton and alfalfa.

Colonel Cook has been connected with the Arkansas reserve militia as brigadier-general and with the Arkansas state guard as major-general. In April, 1898, he was appointed colonel of the second Arkansas infantry, U. S. volunteers, and served in several corps and brigades, and commanded for ten days all the U. S. troops stationed at Camp Shipp, Anniston, Alabama. He was mustered out of service with the regiment February 25, 1899, a service of ten months to a day. He has also been connected with the Arkansas Division, United Confederate Veterans as adjutant-general and chief of staff and major-general thereof, and as aide-de-camp to Generals John B. Gordon and Stephen D. Lee, commanders-in-chief of that organization. For many years he was commander of Tom Hindman Camp No. 318, United Confederate Veterans, Newport, Arkansas, and is now a member general finance committee and major-general commanding third division, Forrest's cavalry corps, U. C. V. He was appointed as a member of the board of trustees of the University of Arkansas May 20, 1903, and served the full term of six years. Until recently he was president of the Arkansas Historical Association.

Having recently leased his Oil Trough plantation for a series of years for an annual money stipend per acre, he has retired from active

business and resides at Batesville, Arkansas. In June, 1871, he was married to Miss Mildred O. Lamb, daughter of Captain Enos Lamb, a Kentuckian and a river steamboat captain. Six children were born of this union, Neve P., now Mrs. Butler of Batesville, Arkansas; Virgil Whitfield; Mary, now Mrs. J. P. Marrow; Jennie, now Mrs. Rutherford, and another son who died in infancy.

George J. Crump, an attorney of Harrison, Arkansas, was born in Harlan County, Kentucky, in June, 1841. He left his native state as a boy and accompanied his parents to Arkansas. The family settled in 1854 on Crooked Creek in Carroll County. He was educated in the common schools of the section and was attending the Carrollton Academy at the beginning of the Civil War. Earnestly and with the enthusiasm of youth he advocated the cause of the South and enlisted at the first call for state troops under J. D. Walker, of Fayetteville. After the fight at Oak Hill, when the state troops were disbanded, he became a member of company E, sixteenth Arkansas infantry, C. S. A.



George J. Crump.

He served in the Trans-Mississippi Department until April, 1862, when he went east of the Mississippi, where he saw active service as lieutenant and regimental adjutant until his capture at Port Hudson. He effected his escape by jumping off the boat and swimming the Mississippi to the Arkansas side. He reported to General

Holmes, then in command at Little Rock, by whom he was ordered home. In the fall of 1864 he was ordered to report at parole camp near Lewisville, Arkansas, and to take command of the men from his regiment as they reported for duty. Here they formed a regiment, composed of fifteenth and sixteenth northwest Arkansas regiment infantry, which he commanded at the battle of Jenkins' Ferry. He was at Marshall, Texas, at the close of the war. After the war Governor Murphy appointed him as clerk of Carroll County. In 1868, when the reconstruction government took charge of the State, Mr. Crump went out of office and entered the mercantile business as a partner of James H. Berry, afterwards United States senator.

Having devoted his leisure moments to the study of law, he was able, in 1869, to open a law office at Carrollton, Arkansas. In 1873 he moved to Harrison, Arkansas, where he has practiced his profession. Colonel Crump was a member of the lower house of the general assembly of Arkansas in 1871. He was appointed as member of the board of trustees of the Arkansas Industrial University in 1883 and served for two years. He was United States marshal for the western district of Arkansas from 1893 to 1897. In July, 1903, he was appointed general attorney for the St. Louis and North Arkansas Railroad Company.

In the spring of 1866 he met Mrs. Josephine (Wright) Greenlee, to whom he was married in the following fall.

Marcellus L. Davis, son of Ray and Sara (Poston) Davis, was born January 7, 1848, in the town of Ozark, Christian County, Missouri. His father was a physician by profession. When Marcellus was twelve months old, his parents emigrated to Arkansas, and settled in the town of Dover in Pope County, where his father practiced his profession. After his father's death, his mother continued to live in Dover for about two years, when she was married to Mr. George Williams, who was one of the original founders and owners of the town of Dardanelle, to which place the family then moved. The father of Marcellus was a prominent member of the Masonic fraternity, which fact entitled him to admission as a student to St. John's College at Little Rock, where he attended one session just before the war.

About the second year of the war the family moved to Hopkins County, Texas, where they engaged in farming until hostilities ceased. They then returned to Dardanelle. Some years later Marcellus returned to Texas and attended a little college called Shiloh for one year. This was the last of his school days, after which, returning home, he drifted from one employment to another, and finally accepted an engagement from a friend to go to Gainesville, Texas, to close out a rather complicated little mercantile establishment. He made the journey on horseback, swimming swollen streams where there were neither fords nor ferries. On reaching Gainesville he found it necessary to employ a lawyer. Having some leisure time and nothing to read, he incidentally took to his attorney's law books and thus began the study of law. When he returned home, he continued the study of the law with Messrs. Rice and Toomer, and was admitted to the bar and to a partnership with the firm. Captain Rice soon left the country and the firm was dissolved. About the year 1871 he engaged in a mercantile venture which was profitable for some years, and then collapsed under a disastrous cotton speculation. He then resumed the profession of the law, which he has pursued almost exclusively ever since.

Mr. Davis was mayor of Dardanelle for two terms and later was elected to the state legislature and served during the session of 1880-81. He has delivered baccalaureate addresses at the University of Arkansas; also at Central College, Hendrix, and Cumberland College. In 1877 he and Prof. W. B. Morrow established a newspaper in Dardanelle called the "Western Immigrant." They disposed of the paper after having edited it for four years, but later Mr. Davis was employed to edit it. He continued this work until 1892, when he was selected as presidential elector by the State Democratic Convention. President Cleveland in 1893 appointed him consul to the Island of Trinidad. His health soon failed and he was transferred to Yucatan, Mexico, with his station at the city of Merida. At the expiration of his term as consul he returned to Arkansas and accepted the position of private secretary to Governor James P. Clarke. He was appointed one of the trustees of the University of Arkansas in 1907.

In 1875 he was married to Miss Janie D. Stone. One son was born of this union. Five years after his marriage his wife died and thirteen years later he was married to Miss Sue W. Johnston. Three children were born of this union, Winnie, Charles Thomas, and Henry Paul.

Alexander Winchester Dinsmore was of Scotch-Irish ancestry. His great-grandfather, John Dinsmore (or Dunsmuir), younger son of a wealthy Scotch farmer, when a lad of seventeen, was offended because required by his father to hold his elder brother's stirrup while the latter mounted his horse, left his father's home and migrated to County Antrim in Ireland, where he brought up a family. Three of his sons, John, Robert and Adam, came from Ireland to America prior to the Revolution.

Alexander Winchester Dinsmore

Adam became the settler and owner of a very fine estate in what is now Washington County, Pennsylvania, a portion of which estate is still in the possession of his descendants. Here A. W. Dinsmore, who was his grandson, and the son of James Dinsmore, was born in April, 1820, and spent his childhood and youth upon his father's farm. At the age of eighteen he was graduated from Washington College, Pennsylvania, and immediately entered upon the work of teaching for a time at Wheeling, West Virginia, and later, for several years in Madison County, Kentucky. He

became a Christian in early life and for forty years, up to his death, was an active elder in the Presbyterian Church.

Having been schooled in early life in the political views of the old Whig party, he allied himself with the opposition for the overthrow of the "Johnson Dynasty," as the Democrats in control of the State were called just before the Civil War. In the memorable contest between Greenwood and Hindman for a seat in Congress, and Richard Johnson and Henry M. Rector for governor, he ardently supported Hindman and Rector. A series of letters written by him for the press at the time attracted state-wide attention, as well for literary merit as for forceful effectiveness, and were said to have been largely instrumental in the success of the cause to which they were contributed. His activity in that campaign was probably the cause of his being selected by the citizens of Benton County, without aspiration upon his part, to represent them as one of their delegates in the state convention called to meet in Little Rock in 1860 to consider the question of secession. He was intensely devoted to the Union and was one of the last to yield hope of an amicable settlement. After secession to the end of the struggle his heart was with the cause of the South. To get his family beyond the reach of invasion, he took them to Texas, where they remained until the end of hostilities, when he brought them home and joined with his people in building up the waste places. Such military service as he rendered was in the commissary department in Texas; he was never actively engaged in the field. In the infancy of the state university he was appointed a member of the board of trustees by the governor, and for a number of years devoted a large part of his time and energies to its interest.

Often while engaged in the work of the university, he would travel on horseback from his home at Bentonville to Fayetteville, and after five or six hours of effective work, return on the same day, thus making a round trip of fifty miles. Neither the protests of his family nor counsel of his physician could induce him to shield himself from inclement weather when he had a purpose that involved exposure. During convalescence from a protracted attack of la grippe, in disobedience of his physician's emphatic directions, he went out into a blizzard and was prostrated with pneumonia, to which he succumbed February 17, 1894.

He married Miss Catharine Anderson, youngest daughter of Colonel Hugh A. Anderson of Benton County, Arkansas. The bridal party traveled on horseback over the Boston Mountains to Van Buren where they embarked for Kentucky. Five children were born of this marriage, Hugh A. Dinsmore of Fayetteville, Arkansas, sometime member of Congress; James H. Dinsmore of Greenville, Texas; Grace D. Watson of Bentonville, Arkansas, and Annie D. McClure of Chickasha, Oklahoma, all of whom are still living. Edward A. Dinsmore, the fourth child, died in 1888, three years after the death of his mother.

Thomas A. Futrall was born on his father's farm in Randolph County, North Carolina, in the forties. He received his elementary education under the direction of his father. While a member of the Confederate army he joined a class of young men and received instruction in mathematics and languages from professors who had been teaching in the universities of the South. He took an active part in the most important campaigns of the army of northern Virginia and was promoted several times for gallantry. He commanded company G, 46th regiment, North Carolina infantry, in the army of north Virginia. He was severely wounded at the second battle of the Wilderness. He was promoted to the captaincy of his division.

After the war closed he returned to his native State and reviewed his studies with Dr. Josiah H. Brooks. He then emigrated to West Tennessee and established a classical school at Cloverport. In 1884 he was elected principal of the Marianna city schools, located at Marianna, Arkansas, where he taught for eighteen consecutive years. Resigning this position, he continued to superintend the Lee County schools until elected superintendent of the Arkansas School for the Blind to fill out the unexpired term of the lamented Colonel O. C. Gray. At the close of his short term as superintendent of the blind school he returned to his home at Marianna, where he now resides. In 1906 he was a candidate for state superintendent of public instruction for Arkansas and in a hotly contested race was defeated by a small margin. In addition to the places already mentioned he has held many responsible positions, the most important of which are

the following: State manager of the National Educational Association for Arkansas; trustee of the University of Arkansas; member of the American Institute of Civics; associate editor "Arkansas School Journal;" chairman of committee appointed to select a suitable United States history for use in the public schools of Arkansas; Mason of high degree; county examiner of Lee County public schools; enumerator of United States census in 1860, and again in 1870; vice-president National Educational Association; state lecturer at Arkansas normal schools during State Superintendent Jordan's administration; appointed by Dr. J. L. M. Curry general agent Peabody Fund; president Arkansas State Teachers' Association; member of the Arkansas State Teachers' Association, and also of the National Educational Association of the United States. In 1900 the LL. D. was conferred on him by the University of Arkansas.

He was married to Miss Emma Headen June 21, 1867. As a result of this union seven children were born.

W. S. Goodwin was born and reared at Warren, Arkansas. He attended the common schools of his home town until his seventeenth year when he entered the Farmville Academy near Duluth, Georgia. A year later he entered Professor N. F. Cooledge's Institute at Norcross, Georgia. He remained here only a short time when he took a business course in Moore's Business College at Atlanta. He then entered the teaching profession, and taught for a time in Bradley County, Arkansas. He then entered the University of Arkansas, and later took a course in the University of Mississippi. He was admitted to the bar in 1894 and has since practiced law at Warren. In 1895 he represented Bradley County in the general assembly. He has held prominent political offices since then. In 1900 he was one of the presidential electors on the Democratic ticket in Arkansas. He served as state senator from the eighteenth senatorial district in the general assembly of 1905 and 1907. He was appointed as member of the board of trustees of the University of Arkansas in 1907. In 1910 he was nominated as the Democratic candidate for Congress. He was married to Miss Sue Meek on December 22, 1897. Two children have been born of this union, Shields Meek and Sara Margaret.

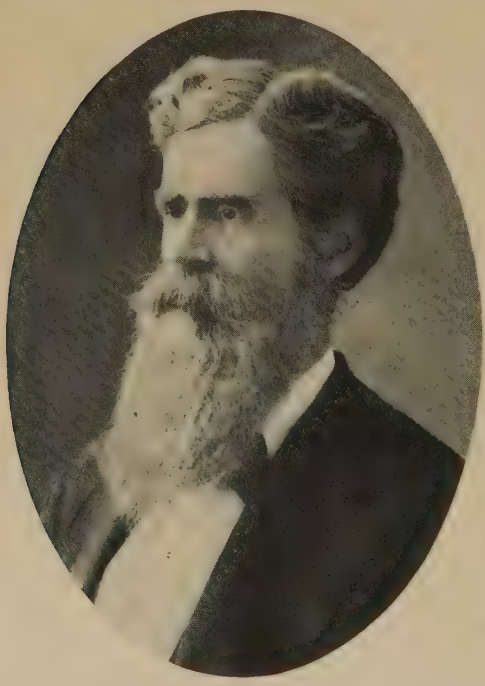
Judge Lafayette Gregg, son of Henry and Mary (Murrell) Gregg, was born near Moulton in Lawrence County, Alabama, February 6, 1825. His father was a native of Alabama, and his mother, though born in Virginia, was reared in Tennessee. His parents moved to Arkansas in 1835, when the boy was ten years old. He received his early education in the public schools of Washington County. After leaving the common schools he entered the Ozark Academy, but his attendance here was short and he entered the law office of W. D. Reagan. Here he received his only professional training. After having spent some years in the law office he was admitted to the bar and began the practice of law at Fayetteville. While practicing law he was also engaged in conducting an improved farm of about four hundred acres.

Lafayette Gregg.

In 1854 he was elected to the legislature and served during the session of 1854-55. When his term in the state legislature expired he was elected prosecuting attorney of the fourth circuit in 1856. He continued in this office until 1861, when he resigned to enlist for service in the Civil War. He was made commander of the fourth Arkansas federal cavalry. During the year 1867-68, he served as chancellor of Pulaski County. In 1868 he was made associate justice of the supreme court, which position he held until 1874. In 1889 he entered the Bank of Fayetteville as its president. He was made commissioner from Arkansas to the World's Fair in Chicago. When the State decided to establish a university, he took a leading part in canvassing Washington County

to secure subscriptions for its location in Fayetteville. He was appointed a member of the first board of trustees and devoted no little time and attention to the work of founding the university and getting it properly organized. The records show that he took a leading part in looking after the erection of buildings and the organization of the faculty. The fact that the main building is so well constructed is said to have been due to his constant watchfulness. In 1886 he ran for the office of governor, but was defeated by Governor Hughes. He was married to Miss Mary A. Shreve of Kentucky, December 22, 1852. Of this union three sons and one daughter were born. He died November 1, 1891.

Thomas Montague Gunter was born in Warren, Tennessee, September 7, 1824. He received his early education in the common schools of his native State; he then entered Irvin College, from which he was graduated in 1850. He came to Fayetteville, Arkansas, in 1853 and entered the law office of General H. F. Thomason as a law student and was admitted to the bar in 1854. Before the Civil War came on he was a strong Union man, but when hostilities really began he cast his lot with the Confederate States. After the conflict was over he turned his attention to the practice of his profession, and by his wise counsel aided in preserving order and alleviating the sufferings and bitterness of reconstruction. He rendered a valuable service to the people of northwest



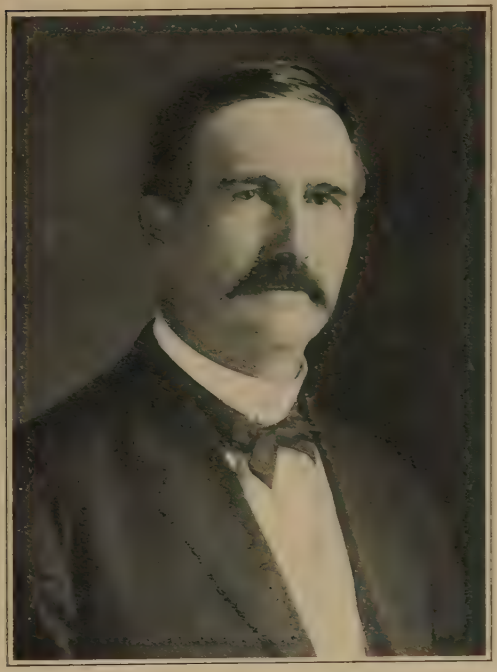
Thomas Montague Gunter.

Arkansas by his efforts to secure the location of the University of Arkansas at Fayetteville. He canvassed the county in this behalf at his own expense and his zeal and convincing argument, together with the confidence the people had in his judgment, were partly instrumental in crowning this great educational movement with success.

For forty years Colonel Gunter was one of the foremost citizens and lawyers of northwest Arkansas. He served as prosecuting attorney of his district, and was later sent as representative to Congress, where he served from 1872 to 1882. For eight years he was chairman of the committee on land claims and was a member of the committee on Indian affairs. At the end of his fifth term he retired voluntarily and engaged in agriculture and stock breeding. He built a large flouring mill at Siloam Springs. He passed all the chairs of the Masonic fraternity and was a worthy sir knight of Baldwin Commandery No. 4. From 1882 to 1886 he served on the board of trustees of the University of Arkansas.

He was married to Miss Marcella Jackson in 1856. His wife died in 1858, and he subsequently married Miss Jennie Bragg of Charlestown, West Virginia, a relative of General Braxton Bragg. Three children survive this union, Judge Julius C. Gunter of Denver, Colorado; Walker T. Gunter, attorney, of Salt Lake City, and Mrs. Robert M. Forbes of Evanston, Illinois. He died in Fayetteville, January 12, 1904.

C. C. Hamby, son of Thomas Jefferson and Nancy Ann Elizabeth Hamby, was born in Calhoun County, Mississippi, September 14, 1851. He attended a common school and one session of a special grammar school. He came to Arkansas in fall of 1872 and attended high school at Booneville in the fall and winter of 1873-74. He moved to Millville, Ouachita County, in spring of 1874, where he taught two terms of school. While teaching school he studied law privately at night, on Saturdays, and while not engaged in the school room. He was admitted to the bar at Camden, Arkansas, 1876, but he taught two terms of school to tide over the waiting period. He then located at Prescott, Arkansas, in October, 1878, and at once entered actively upon the practice of law. He was admitted to practice before the



Christopher Columbus Hamby.

Arkansas supreme court in 1881 and the federal courts the same year. He was elected state senator from twentieth senatorial district in 1890 and at the close of first session in the spring of 1891 was elected president of the senate, and during Governor Eagle's illness in the summer of 1892 served as governor three or four months. At the session of the senate in 1893 he was made chairman of the judiciary committee of that body. In June, 1904, he was unanimously elected chairman of the Democratic state convention at Hot Springs, and was voted the thanks of that body for fair and impartial rulings. He was appointed a member of the board of trustees of the University of Arkansas in 1897 and served for ten years. He has for several years been president of the school board of Prescott. He has been elected and served as W. M. of Prescott Lodge No. 80, A. F. & A. M., a number of times. At the annual session of the Grand Lodge, A. F. & A. M., of Arkansas, in 1889, he was elected grand orator, and at the session of that body in 1890 delivered the grand oration. In January, 1897, he was tendered and accepted the attorneyship for the St. Louis, Iron Mountain & Southern Railway Company in Southwest Arkansas. On September 1, 1909, he voluntarily resigned that position, but at request of the railway company remained in the service until October 1, 1909. He has been actively engaged in practice of law in Prescott, Arkansas, since October, 1878. He is a Knight Templar Mason, also a 32 degree Scottish Rite Mason;

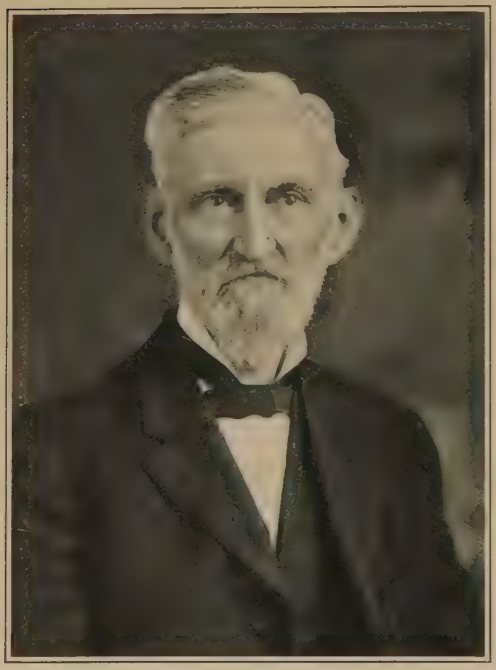
a member of Hugh de Payne Commandery No. 1 at Little Rock, Arkansas, and Albert Pike Consistory in the Valley of Little Rock. He is married and is the father of six children, five of whom are living.

Richard Owen Herbert, son of Dr. Joseph and Harriet (Harris) Herbert, was born in Izard County, Arkansas, November 10, 1861. He began his education at the La Crosse Collegiate Institute, where he continued his studies for several years. When a young man he removed to Batesville, and while there attended the Arkansas College one or two terms. In 1880 he entered the University of Arkansas at Fayetteville, but remained in this institution only two years. He then removed to Nashville, Tennessee, to enter Vanderbilt University. In 1882 he graduated in pharmacy from this university. Mr. Herbert returned to Arkansas immediately after graduating and entered the mercantile business at Melbourne, Arkansas, in 1887. Here he assisted in establishing a prosperous business. The firm of which Mr. Herbert was a member dissolved, and in 1898 he removed to Greenwood, where he established the Sebastian County Bank, and was made cashier of the same. He remained in this position until in 1906, when he removed to Fayetteville, Washington County, in order to become the vice-president of the Washington County Bank. While vice-president of this bank, he was appointed one of the board of trustees of the state university

Richard Owen Herbert.

under Governor John S. Little's administration, a position which he now holds. He is one of the efficient members of the board. Mr. Herbert's business interest at Greenwood demanding his special attention, he again removed to that place in order to reassume his position as cashier of the Sebastian County Bank. Mr. Herbert was married to Miss Hattie M. Warner August 29, 1883. Seven children, five of whom survive, are the fruits of this union.

Dudley Emerson Jones, son of Eldad and Maria A (Perry) Jones, was born January 30, 1829, in Clifton Park Township, Saratoga County, New York. His early life was passed upon his father's farm and he attended the district school until he was a little past the age of fifteen. This common school education laid the foundation for a deeper and more varied learning in later years. In October, 1845, when a little past the age of fifteen, he was apprenticed to Honorable A. A. Van Vorst, the mayor for twenty years of the city of Schenectady, N. Y.



Dudley Emerson Jones.

Shortly after the first excitement caused by the discovery of gold in California he persuaded his father to purchase for him a share in a joint stock company which bought and fitted out the bark "Nautilus" for the journey around Cape Horn. With a party of seventy-five other venturesome spirits, on February 23, 1849, he sailed from New York City for the land of gold. After a hazardous and tedious journey of over seven

months, they landed in San Francisco October 10 of the same year and shortly thereafter joined in the rush for the gold mines. He located on the American River in Placer County, California, at a place known as "Smith's Bar," where he began his mining operations. The next spring found him on the North Fork of the Yuba River. The following summer he returned to the American River and established a mercantile business at a place known as "Horse Shoe Bar."

Soon the necessity for a safe and convenient means of crossing the river and encouraging traffic became apparent to him and he undertook the building of a good road over the mountains and the erection of a suspension bridge, the first bridge of any importance in the State of California. With the aid of his associates he carried this work to completion under great hardships, from the fact that all materials used in its construction had to be brought by wagon teams from Sacramento, which at that time was but a village. In 1855 he moved to Keokuk, Iowa, and formed a business partnership. The firm was prosperous until the Civil War. Mr. Jones, in response to the call of arms, enlisted in the Union army, where his business and executive abilities promptly promoted him to the position of first lieutenant and quartermaster of the third Iowa cavalry. He went through the war and was honorably discharged at its close with his command at Little Rock, Arkansas.

Mr. Jones was quick to see the future possibilities of the State of Arkansas and of its capital city and so determined to settle there in business. He at once formed and established the firm of Jones, McDowell & Company, which, with its branch connections, Bussy & Company, of New Orleans and St. Louis, rapidly developed an enormous trade in the line of cotton commission, farming implements and hardware. In later years and after the dissolution of this firm, Mr. Jones incorporated the business of the Dudley E. Jones Company, of which he is the president and active manager.

In 1874 Mr. Jones was appointed by Governor Elisha Baxter one of three commissioners, the others being Judge U. M. Rose and Gordon M. Peay, to canvass and officially count the votes of the State and proclaim for or against the new constitution. For twenty years he served as foreman of the grand juries in his home county. Under

the act of the legislature of Arkansas in 1874 reorganizing the Arkansas Industrial University at Fayetteville, Mr. Jones was appointed a trustee, which position he held until 1880. Although a Republican, he had no sympathy with the carpet-baggers, and was very active in ferreting out corruption. He claims the honor of serving on a grand jury which forced the surrender of $50,000 of fraudulent Pulaski County bonds. He supported Governor Baxter in his contest with Brooks. In 1857 he joined the Hardin Lodge of the Masonic fraternity at Keokuk, Iowa. He was married to Miss Caroline Peck September 12, 1855. Of this union five children were born.

James M. Johnson, son of James M. and Elizabeth Johnson, was born in Warren County, Tennessee, December 8, 1833. He was educated in the common schools of Fayetteville, Arkansas College, and the Ozark Institute. After leaving the institute he taught school for two years and then began the study of medicine under practitioners in Fayetteville. In 1857 he entered the Medical College of St. Louis and remained two years. He then returned to Arkansas and settled at Huntsville, where he practiced medicine until the spring of 1862. Being a Union man, he went north and joined the federal army under General Curtis and remained with him until he arrived at Helena, Arkansas. There he received authority from the military governor, John S. Phelps, to raise Arkansas troops, and

James M. Johnson.

he at once proceeded to raise the first regiment of Arkansas infantry, of which he was commissioned colonel. He also assisted in organizing other companies of infantry and cavalry. Having received orders to reinforce General Blunt at Fort Gibson, Indian Territory, he marched thither and the united forces succeeded in driving the enemy south. He then returned to Arkansas and attacked General Cable, nine miles above Fort Smith in Poteau River, drove him south and entered Fort Smith September 1, 1863. He was present at the battle of Cotton Plant and the massacre at Fort Pillow.

Mr. Johnson was elected to Congress in 1864 from the third district and reëlected in 1866, but was not allowed to take his seat. His family had gone to Illinois for safety during the war, but they returned to Arkansas in 1866. Upon the recommendation of General Grant he was made brevet brigadier-general by President Johnson in 1867. The same year he was elected lieutenant-governor of Arkansas and served until 1869, when Governor Powell Clayton appointed him secretary of state, to which position he was elected in November, 1872. He was personally acquainted with Abraham Lincoln, Andrew Johnson, U. S. Grant, Thaddeus Stevens, Roscoe Conkling, James G. Blaine, Rutherford B. Hayes, and James A. Garfield. He has been a Mason for over fifty years. September 10, 1850, he married Miss Elizabeth Johnson of Madison County, who died August 21, 1884. Seven children were born of this union, Sarah Elizabeth, Albert P., Thomas M., James F., Thaddeus, Lincoln, Katie, and Charles. October 15, 1893, he married Mrs. Jennie Wilson of Whitener, Arkansas. For the past forty years his place of residence has been on a farm near Wesley, Arkansas.

Gustave Jones, son of William R. and Kate (Hudson) Jones, was born in Jackson County, Arkansas, August 25, 1861. His father was a native of Kentucky, but early in 1851 he came to Arkansas where he reared his family. The family continued to reside in Jackson County, Arkansas, until 1895, but from 1887 until that time they spent the summers at Maryville, Missouri. In December, 1877, Mr.

Jones entered the freshman class at the University of Arkansas. On account of a severe attack of typhoid fever in December, 1880, he had to drop out of the junior class, and hence graduated with the class of 1882. He taught school for four years after he left the university, two years at Maryville, Missouri, and two at Savannah, Missouri. During this time he read law and in 1886 he returned to Jackson County, Arkansas. His father having sent him to school, told him he must thereafter make his own way. He kept books for a mercantile establishment and was office boy for a law firm for two years. He was admitted to the bar at Jacksonport and began the practice of law in December, 1888. In 1887 he was appointed county examiner for Jackson County and held this position for about four years. This was one of the two offices he ever held, the other being mayor of Newport for a few months succeeding his uncle who died. He has been for about nine years a member of the Newport school board and for the last five years president of the board. He was appointed a member of the board of trustees of the University of Arkansas in 1907 for the second Congressional district by Acting Governor Moore. He was a delegate to the Democratic convention at Denver in 1908. He was married to Miss Julia Stevens August 27, 1889. Of this union three daughters were born. His home is in Newport, Arkansas.

Gustave Jones.

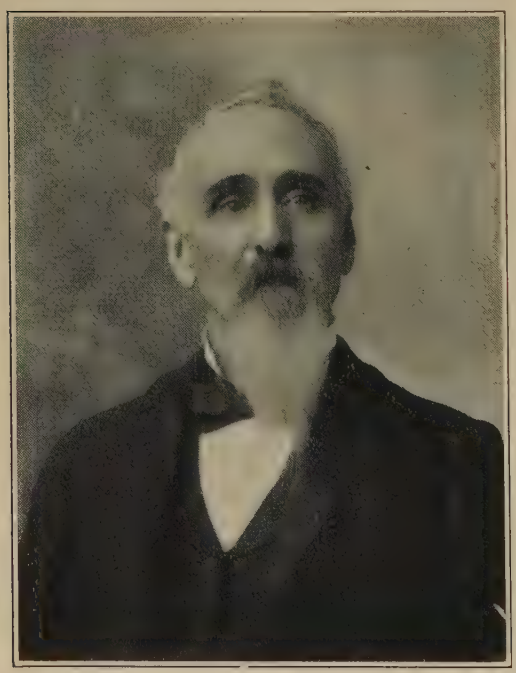
James Walker Jones was born in Breckenridge County, Kentucky, November 23, 1821. When he was eleven years old his parents moved to Meade County where he lived until he was seventeen, when he left the farm with his worldly possessions tied up in a handkerchief. He first went to Big Springs, where he attended school and worked as office boy for Doctor Summers, reading medicine under the wise guidance of the kind old doctor. In 1844 he entered the Louisville Medical College, where he later graduated with honor. Immediately after his graduation he began the practice of medicine in Big Springs. Two years later he moved to Cloverport, where he had a large and lucrative practice. In the fall of 1848 he located at Jacksonport, Arkansas, where he practiced his profession for twenty-eight years. In May, 1876, he moved to Fayetteville, at which place he lived until his death.

James Walker Jones.

Dr. Jones was president of the Washington County Medical Society and was also an honored member of the Arkansas State Medical Association from the time of its reorganization in 1874. He was acting assistant surgeon of the 7th Iowa regiment in Jacksonport in 1864 and 1865. He was a member of the board of trustees of the university and, aside from his practice, this was the position which he valued most He worked hard for the success of the institution, and his influence brought many students from the southern counties. He took an active interest in church work, being a member of the Methodist Episcopal Church, South.

During reconstruction days in Arkansas, Dr. Jones left the United States for a time and made a tour through Brazil, British Honduras, Guatemala, Panama and Cuba, with a view to emigrating. While in Havana he was in the office of Dr. Burgis of that city and assisted him in the treatment of yellow fever. He returned to Arkansas in 1870 and resumed the practice of his profession.

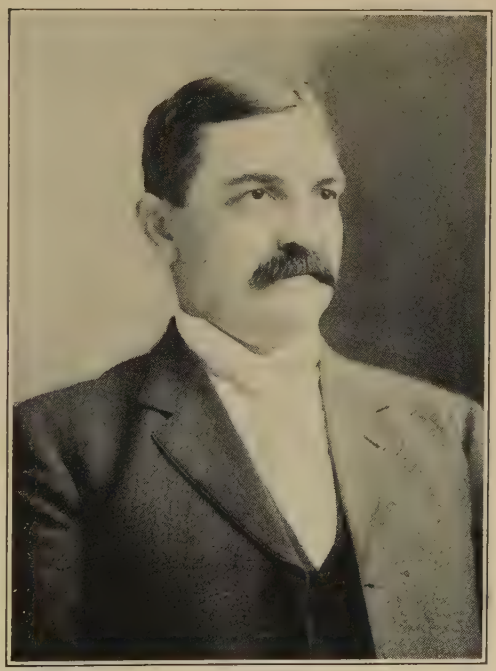
He became a Master Mason in 1842 at Big Springs, Kentucky, Lodge No. 118. Dr. Jones was first married May, 1845, in Breckenridge County, Kentucky, to Miss Mary Dowell. Two daughters were born of this marriage, Frances Amelia and Mary, both of whom are dead. Dr. Jones' second marriage was in Jackson County, Arkansas, October, 1851, to Miss Savannah Prynne, daughter of Dr. Henry Prynne. Two daughters, Minerva Annie, who died in infancy, and Laura Rue, were born of this marriage. Dr. Jones died in Idaho Springs, Colorado, September, 1885, and was buried in Fayetteville, Arkansas.



John W. Keesee.

John W. Keesee, son of Thomas W. and Louis (Cross) Keesee, was born in Columbia, Maury County, Tennessee, August 8, 1838. His father was a native of Virginia and his mother was born in Tennessee. He grew to young manhood in his native town and there received his education in Jackson College. In 1858 he came to Phillips County, Arkansas, and made his home on a plantation. He lived there until 1861 when,

at the beginning of the Civil War, he entered the Southern army. He served with General Hindman in Arkansas and Missouri, and a part of the time with General N. B. Forrest east of the Mississippi River. While serving in General Hindman's regiment he was raised to the rank of captain. After the close of the war he returned to his plantation in Arkansas and there set about to retrieve his broken fortune. He was at various times honored by his country and state in an official capacity. In 1892 he was elected to the state legislature and in 1898 was reëlected to the same position. He stood high among the lawmakers of the State. He was appointed a member of the board of trustees of the University of Arkansas in April, 1889, and served in this capacity for four years. He was twice married, first in 1858, to Miss Louisa Drane. Of this union two daughters were born. His wife died while he was serving in the army of the Confederacy and the children were sent to live with their prandparents. On January 23, 1866, he was married the second time to Miss Susan R. Johnson. Of this union three children were born. He died June 6, 1904. His five children, J. W. Keesee of Helena, Jack and Morris Keesee, Mrs. W. M. Richardson of Latour, and Mrs. Woolridge of Columbia, Tennessee, survive him.



William Henry Langford.

William Henry Langford was born June 6th, 1856, at Champagnolle, Union County, Arkansas. He prepared for college in the Eldorado high school and graduated from the University of Arkansas with the B. A. degree in 1880. During

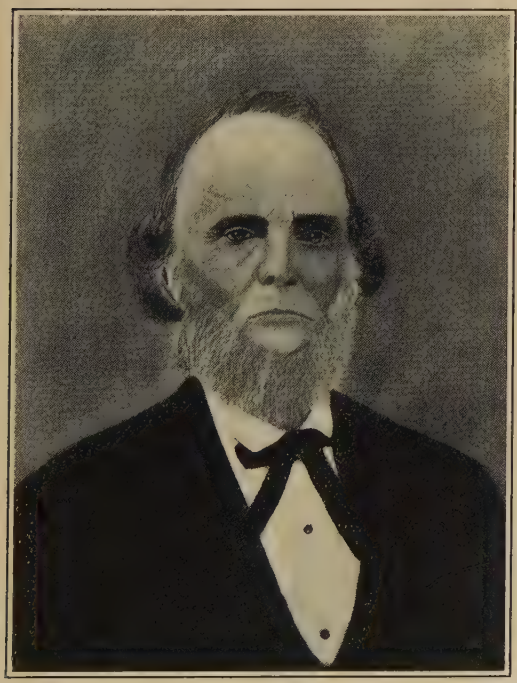
vacations he taught school to get money to continue his education. He went to Little Rock in 1881 and was assistant clerk of the house of representatives. Afterwards he secured permission of Judge U. M. Rose to read law in his office and under him. In 1883 he was licensed to practice in the circuit and supreme courts of the State and the federal court at Little Rock. While reading law he was private secretary to Governor James H. Berry and afterwards deputy secretary of state under Jacob Frolich. In 1886 he moved to Pine Bluff, Arkansas, where he became actively engaged in the cotton and wholesale grocery business. He established the Speers Company and became the president, manager and buyer for the first eight years of its existence. At the end of this period he moved to Little Rock and in less than a year's absence was called back to take the presidency of the Citizens Bank, which position he has held for the past twelve years. He built the first and only corn meal mill and grain elevator in Pine Bluff and the second cotton press there. He is a large stockholder in two large cotton-seed oil mills there. He was largely instrumental in bringing the third railway into Pine Bluff, the Pine Bluff & Arkansas River Railway. He was originator of the Pine Bluff street railroad, of which he was chief builder and owner. He has been interested in the building of many manufacturing plants in Pine Bluff and has large land holdings in Jefferson and other counties of the State.

Up to March, 1907, he had served continuously as a trustee of the University of Arkansas for eighteen years, a record of which he is justly proud. He has also taken an active interest in the development of the branch normal school for negroes in Pine Bluff.

He was married to Miss Ida Speers November 23, 1886. Two sons, one of whom survives, were born to them.

Joseph W. Martin was born at Clinton, Green County, Alabama, June 6, 1836. His father was a Presbyterian minister. When Joseph was fourteen years old the family moved to Prairie County, Arkansas. Three years after this in 1853, he went to Princeton, New Jersey, and graduated in 1855. After graduation he taught school in Tennessee, but during this time he studied law. He was admitted

to the bar in 1857. He returned to Arkansas the same year and was licensed to practice. He located at Des Arc and practiced there until 1860. That year he moved to Little Rock and became a partner to Colonel Sam W. Williams. In 1861 he enlisted in Colonel Lyon's regiment, in the sixth Arkansas infantry, and became captain of company K. He took part in the battles of Shiloh, Perryville, Murfreesboro and Chickamauga, being wounded in the last named engagement. When the war closed he returned to Little Rock in 1865 and formed a partnership with Mr. Williams and Colonel Sol. F. Clark. This firm continued until 1868. In 1872 he formed a partnership with F. W. Compton which continued until 1876. He was elected prosecuting attorney in 1874, and judge of the sixth circuit in 1876 to serve out the unexpired term of Judge John J. Clendennin. In 1878 he was reëlected for a term of four years. He was succeeded in 1882 by Judge F. T. Vaughan, but in 1886 was again elected for a term of four years. He was appointed a member of the board of trustees of the University of Arkansas in 1882, and served in this capacity until 1886. He was married in 1866 to Miss Emma C. Beebe of Little Rock.



William McIlroy.

William McIlroy was born in Rockingham County, North Carolina, July 24, 1812, son of James and Mary McIlroy, of Scotch-Irish descent. His father was a shoemaker by trade. His mother died when he was five years old. He spent his boyhood on the farm and received a very limited education. In 1835 he abandoned

farm life and began clerking in the store of Colonel John P. Long at Chattanooga, Tennessee, where he remained two years. In June, 1838, he settled with his family at the headwaters of the White River in Madison County, Arkansas, where he engaged in farming and merchandising for about eleven years. In 1855 he opened a store in Fayetteville on a capital of $7,500. In 1872 he opened a bank in partnership with others, but three years later suffered heavy losses. He then opened an individual bank which he conducted with success for many years and which developed into the present McIlroy Bank. The location of the university at Fayetteville proved a severe strain on his local patriotism as against attachment for his old home. He wanted the university here, but when the board selected a site which involved the sacrifice of his hearth and home he at first demurred. After considerable persuasion he was finally induced to sell his farm and give up his home in order that the university might have an abiding place. After the university was organized he served as treasurer.

Before the Civil War he affiliated with the Whig party; after the war with the Democratic party. He was a member of the Episcopal Church and served as a vestryman for thirty years. Mr. McIlroy was married three times, first to Miss Missouri Van Dyke of South Carolina, of whom two children were born. He next married Mrs. Eliza Jane Russell in Kentucky in 1838, who died in Washington County, Arkansas, in 1864, aged sixty. In 1865 he married Miss Martha Brooks, a native of Tennessee. Of this union five children were born, William R., James H., Charles D., Anna May, and Mary Kate.

John Campbell Mitchell was born on a farm near Cane Hill, Washington County, Arkansas, July 28, 1849. He is of Scotch-Irish parentage. Owing to the Civil War his advantages in early life were very poor. His opportunities were still more impaired by the death of his father, which left the care of the boy's mother and two sisters to him. He worked on the farm during the summer and attended

John Campbell Mitchell.

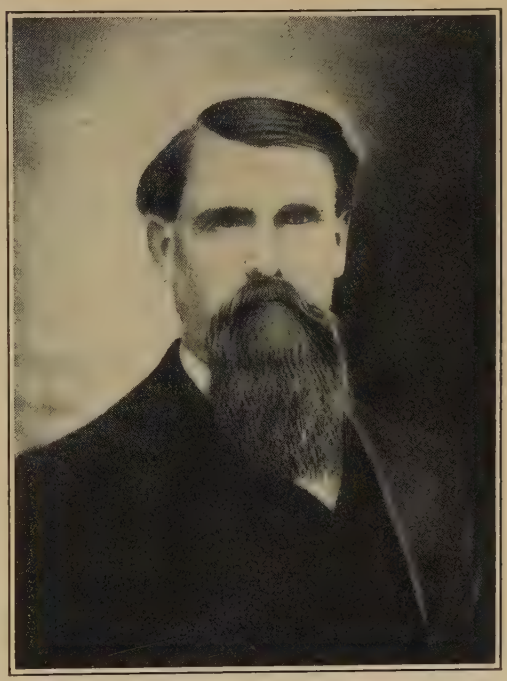
school at Cane Hill in the winter. After having completed the junior year in the school at Cane Hill he engaged in teaching country schools, and continued in this work for several years. In 1879 he was elected principal of the Cincinnati Academy and taught there for six years. In 1892 he was elected principal of Washington school at Fayetteville, Arkansas, which position he held for four years. In 1896 he was elected treasurer of Washington County and served in this capacity for four years, at which time he accepted the position as superintendent of the Fayetteville schools. He held this position for five years until 1905. In January, 1899, he was appointed a member of the board of trustees of the university by Governor Jones and sereved six years. Being a strong believer in the higher education of women he worked zealously for an appropriation for a girls' dormitory. At one time when the building fund had become exhausted he and Captain Stroup, another member of the board, signed a personal note for five thousand dollars that the work might go on. He is now engaged in real estate, insurance and mercantile business in Fayetteville, Arkansas. He was married to Miss Mary L. West of Cincinnati in 1882. Five children, four of whom are living, have been born to them, Sam A. Mitchell, a lawyer in St. Louis; John L. Mitchell, a merchant at Fayetteville, Arkansas; Sibye and Ara E., who are at home.

Harry Nelson Pharr, son of Henry Newton and Stella (Scott) Pharr, was born at La Grange, Lee County, Arkansas, May 8, 1875. He attended the Lee High School of La Grange, Arkansas, until March, 1890, when he entered the freshman class at the University of Arkansas, graduating in December, 1893, with the degree of B. C. E. In June, 1900, he received the degree of C. E. at the same institution.

Harry Nelson Pharr.

He was from 1893 until 1897 assistant engineer under his father in the construction of the levee of the St. Francis levee district on the Mississippi River. On the death of his father in 1897 he succeeded him as chief engineer of the St. Francis levee district of Arkansas, which position he held until May, 1907, practically completing the levee system of about 160 miles in length. Since 1907 he has been engaged in the practice of engineering as consulting engineer in Memphis, Tennessee. He served in this capacity in the construction of an important bridge across the St. Francis River at Madison, Arkansas; also in municipal and other engineering work. He was appointed a member of the board of trustees of the University of Arkansas in 1900 and served as such for about three years. In 1900 he became an associate member and in 1905 a member of the American Society of Civil Engineers. He is also a member of the Memphis Engineering Society and has served as its president. In 1907 he was appointed colonel and chief of engineers of the Arkansas state militia to serve two years. He was married to Miss Creola Strong September 12, 1907.

Samuel P. Pittman, son of J. C. and Mary (Luttle) Pittman, was born at Prairie Grove, Arkansas, June 27, 1836. He was educated in the common schools of his neighborhood and at Ozark Institute, Robert Macklin being principal. Mr. Pittman's primary occupation has been that of farming and stock raising. He has also been prominently connected with the banking interests of Fayetteville. In 1884 he was one of six to organize the Washington County Bank, now known as the Arkansas National. He was president or vice-president of this institution until 1905. The following year he with others organized the First National Bank, of which he was president until his retirement from the banking business two or three years later. He is now living near Fayetteville. In 1876 he was elected by the legislature trustee of the university to succeed M. F. Lake resigned. He retired by resignation from the board in 1882. He was married to Sarah Boone in May, 1858. Two children were born to them, both of whom are dead.



Samuel Pinckney Pittman.

Alonzo S. Prather was born in Vernon, Jennings County, Indiana, July 25, 1840. He received his early education in the common schools of his native county. He then entered Asbury University, now De Pauw University, at Greencastle, Indiana. His father gave him one hundred dollars as an endowment fund for scholarship; Mr. Prather still has the original. He left school before his graduation

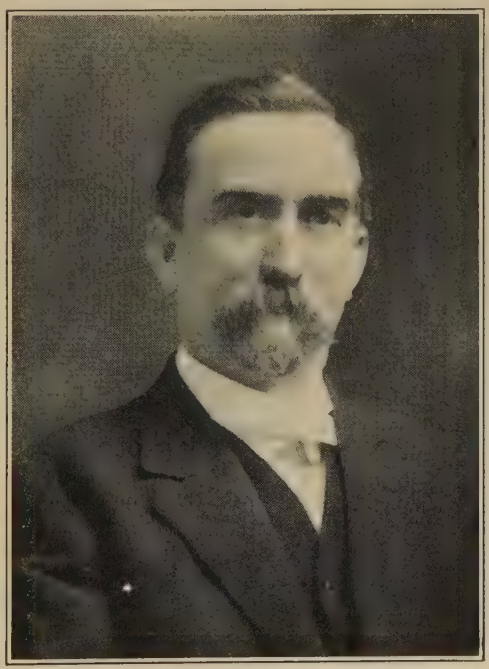
Alonzo S. Prather.

and entered the Union army in 1861 in company G, 6th Indiana infantry. He was in the West Virginia campaign with which the war opened and was in the battles of Shiloh, Stone River, Chickamauga, Chattanooga, and the Atlanta campaign. After the war Mr. Prather read and practiced law. In 1870 he succeeded ex-Governor Murphy as prosecuting attorney of Madison County. He was receiver of the United States land office at Harrison, Arkansas, 1875-1880. He was in 1872 superintendent of schools of the fourth judicial circuit which was composed of Madison, Carroll, Boone, Marion, Newton, Searcy, and Van Buren counties. He put the free school system into operation and built about two hundred school houses. He connected the private colleges at Berryville, Bellefonte and Yellville with the public schools.

Mr. Prather was a member of the first board of trustees of the university and was chairman of the building committee. He among others voted to locate the university at Fayetteville. He, with the help of Mr. John Clayton, located the site where the building now stands, let the contract and had the building well advanced when he was put out of office by the Baxter revolution. He left Arkansas in 1879 and settled at Mulvane, Kansas, where he was elected justice of the peace. In 1881 he moved to Missouri, where he has since resided. He has been elected to the lower house of the general assembly for five terms. He wrote a history of Boone County,

Arkansas, which was read at the Centennial Celebration at Harrison, Arkansas, July 4, 1876. He placed a copy in a safe at Washington, D. C., just as it was locked for one hundred years. He wrote a poem in blank verse entitled "White River." He is a member of the Southern Presbyterian Church; he is also an Odd Fellow and a Mason. He helped to organize the Confederate Home at Higginsville, Missouri, and made it and the St. James, Missouri, Federal Home state institutions. He was married to Miss Marie McMillan. Of this union eight children were born, six of whom survive.

H. F. Reagan was born in Washington County, Arkansas. He was educated in the public schools of his county and at Cane Hill College, after which he engaged in teaching until he was elected county clerk, in which position he served two terms. In April, 1887, he purchased an interest in the "Arkansas Sentinel," succeeding James R. Pettigrew, of the Utah Commission, who had died a few months before. With Colonel I. M. Patridge, he edited that journal eleven years, during which time he was an active member of the Arkansas Press Association, representing that body as a delegate to the National Editorial Association in the years 1889 and 1896.



Hugh French Reagan.

In 1893, during the second administration of President Cleveland, he was appointed deputy stamp collector of internal revenue and served four years. During the latter part of Governor Fishback's administration he was elected

treasurer of the University of Arkansas and served one year. In April, 1895, Governor Clark appointed him a member of the board of state charities, in which capacity he served two years. He served as secretary of the board of trustees of the University of Arkansas for eight years, including the entire administration of Governor Davis. He is now serving his seventh year as secretary of the Fayetteville National Building and Loan Association.

The salaries of the offices he has held, save one, were very meager, but independent of the services he has rendered the public, he made several profitable investments which provided him with a competency and enabled him to fill the public positions efficiently. February 14, 1884, he was married to Miss Mary Bell Agee of La Monte, Missouri. They have only one child, a son, Zenas Lytton Reagan, who was graduated at the University of Arkansas in the class of 1908.

Grandison D Royston.

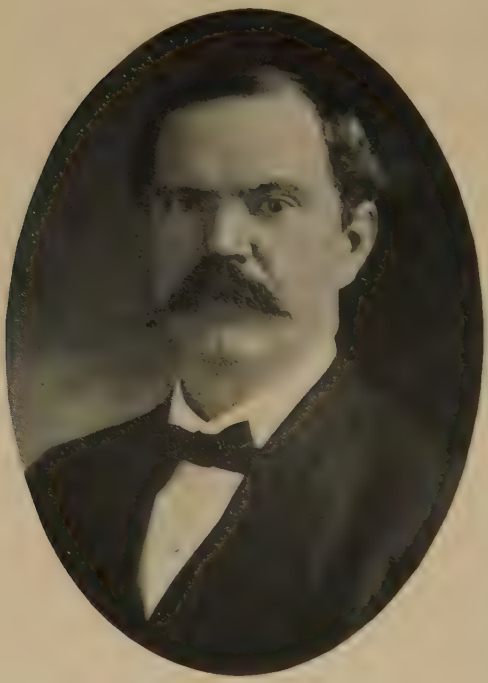
Grandison D. Royston, son of Joshua and Elizabeth (Watson) Royston, was born in Carter County, Tennessee, December 9, 1809. He received his early education in the common schools of his native state, and there prepared for an academic course which he took at a Presbyterian academy in Washington County, Tennessee. He was for a time a schoolmate of the girl who married Andrew Johnson. After a thorough academic training, he entered the law office of Judge Emerson at Jonesboro, Tennessee, and was admitted to the bar in December, 1831. He came to Arkansas in 1832 and settled

in Fayetteville, where he resided eight months. He then moved to Washington, Arkansas, where he made his home until his death in 1889. After moving to Arkansas, General Royston began the practice of law. Then the State was his circuit, and with his clothes and library in a leather saddle bag, he rode over the State and practiced law. In 1833 General Royston was elected prosecuting attorney for the third judicial district of Arkansas. Finding the practice of law more lucrative, he resigned his position as prosecuting attorney and engaged in law practice.

In 1835 he was elected to the convention to frame a constitution preparatory to the admission of Arkansas as a state; and in 1836 he was elected to the first legislature under the new state government and the following year he was elected speaker of the house. In 1841 President Tyler appointed him United States district attorney for the district of Arkansas. He held this position only a short time when he resigned. In 1858 he was elected to the state senate from the district composed of the counties of Hempstead, Pike and Lafayette. At this session he became the father of the levee system of the State. In 1861 he was elected to the Confederate Congress and in that capacity he served his state for two years. He was not a believer in secession, but like many other men of his time he believed that his allegiance was first due his State. In 1874 he was elected from Hempstead County to the constitutional convention, and was made president of that body. In 1876 he was delegate from the State at large to the national Democratic convention and voted for Tilden and Hendricks. He was a member of the board of trustees of the University of Arkansas 1881-83. He was married to Miss Mary Clarissa Bates in May, 1835. Of this marriage three children were born, all of whom survive: C. E. Royston, circuit clerk of Hempstead County; William A. Royston, merchant, of Little Rock; and Mrs. Irene Jett of Little Rock. General Royston died at Washington, Arkansas, August 14, 1889.

John Ferguson Rutherford was born near Fayetteville in Washington County, Arkansas, in 1859. He received his early training in the schools near his home and later entered the University of Arkansas.

After leaving school he was employed by Reed and Ferguson, merchants in Fayetteville. He lived at Fayetteville until he was twenty years old. When he entered business he had no thought of becoming a lumberman, but his interest in this business was enlisted by the building of the St. Louis and San Francisco Railway south from Monett, Missouri. The line passes through a section of Arkansas rich in natural resources. Mr. Rutherford helped to build the line, his work consisting mainly in furnishing the bridge timbers and heavy construction material, which he cut from the native white oak found along the right of way. In 1885 he made an extended trip through southern Arkansas with the view of locating. He decided to locate at Pine Bluff, then a town of fifteen hundred. The company first formed was known as O. D. Peck Company. In 1889 the name was changed to the Bluff City Lumber Company. In the meantime Mr. Rutherford became associated with Mr. Charles La Due, a pioneer lumberman of that section of the State. They operated a planing mill at Cleo, Arkansas. After a time Mr. Rutherford bought out Mr. La Due's interest in the business and subsequently sold out to the Bluff City Lumber Company.



John Ferguson Rutherford.

A short time ago (1909) he submitted a proposition to the business men of Pine Bluff which was finally accepted. The proposition, which was the result of negotiations with the Rock Island system,

looks to the raising of fifty thousand dollars among the local merchants and business interests, as a bonus to be paid to secure the formation of a new railway company, and the extension of the line so that a traffic arrangement can be entered into with the Rock Island system. The rapid growth of the Bluff City Lumber Company is due to Mr. Rutherford's energy and unusual ability. His work in southern Arkansas is fast bringing that section of the State to the front rank. He was appointed to membership on the board of trustees of the University of Arkansas in 1907. He was married to Miss Jones of Little Rock. Three children, one son and two daughters, have been born to them.

John N. Sarber was born in Pittsburg, Pennsylvania, October 29, 1838. He removed to Kansas City with his parents at the age of fourteen years, and two years later they removed to Manhattan, Kansas. From there he enlisted in the 2d Kansas cavalry at the beginning of the Civil War and served as scout with the rank and pay of brigadier-general in that regiment until the close of the war. After the war he moved to Arkansas and was elected to the constitutional convention of 1868. He was elected to the state senate the same year and served in the sessions of 1868, 1869 and 1871. In 1872 he was appointed by President Grant United States marshal for the western district of Arkansas and lived in Fort Smith during the one term he served as marshal. He then returned to Clarksville, where he lived until his death, October 23,

John N. Sarber.

1906. Shortly after the close of war he was admitted to the bar and practiced before all the courts of Arkansas. He was the undisputed leader of Republican politics in Johnson County and was for thirty-five years and until the time of his death chairman of the Republican organization of that county. He was one of the 306 delegates to the Republican National Convention of 1880 who, with Roscoe Conkling, stood until the last for the renomination of President Grant for a third term. He was a member of the first board of trustees for the University of Arkansas and was chairman of the committee selected to locate the university. He resigned November 10, 1872.

He was married to Miss Sue Rose December 5, 1866. Six children were born to them, four of whom survive. Their names are: Lucy, Frank, J. N. Sarber, Jr., May and Richard.

Elhanan J. Searle, eldest son of James and Elizabeth (Quinn) Searle, was born at Royalton, Fairfield County, Ohio, January 18, 1835. His ancestors, both paternal and maternal, were engaged in nearly all of the Indian wars of colonial days and in the war for independence. In 1855 Elhanan left home for the purpose of acquiring a thorough education, entering the Rock River Seminary at Mount Morris, Illinois, where he prepared for college. He entered Northwestern University at Evanston in 1856. He completed the course in three years, graduating in 1859 with the B. A. degree. He later received the A. M. from the same institution. While still in the Northwestern University he commenced the study of law under General Beveridge, of Chicago, and upon completion of his course there he went to Springfield, where he entered the office of Lincoln and Herndon. He passed the examination before the supreme court of the State in 1861 and was admitted to the bar. Mr. Searle entered the Union army as a private in company H, 10th Illinois volunteer cavalry. He served during the period of the war and was promoted from private to lieutenant-colonel. He took part in the battles of Cane Hill, Prairie Grove, and Fayetteville, Arkansas; Perryville, Indian Territory; and Camden and Jenkins Ferry, Arkansas.

It was through an incident of the war that Colonel Searle decided to locate in Arkansas at its conclusion. In January, 1863, Dr. J. M.

Johnson, a resident of that State, requested him to assist in the organization of a regiment of Arkansas troops. He consented and recruited the first Arkansas volunteer cavalry, of which he became lieutenant-colonel and with which he served until the close of the war, having been mustered out of the service August 10, 1865. He also assisted in recruiting the second and fourth regiments of volunteer cavalry of that State.

Upon his discharge from military service he located in Arkansas and entered upon the practice of his profession in the western part of the State. On the 19th of February, 1866, Colonel Searle was commissioned as prosecuting attorney for the ninth judicial circuit of Arkansas and was also appointed United States commissioner for the western district of Arkansas. He also acted during this time as assistant attorney for the United States district and circuit courts for said district. These positions he filled until January 1, 1867, when he was commissioned as circuit judge of the ninth judicial district by the provisional governor of the State. He served under this commission until July 22, 1868, when he was commissioned by Governor Clayton as an associate justice of the supreme court of the State and served nearly two years, when he was elected for a term of eight years to succeed himself November 5, 1872. Under this commission he served until the fall of 1874, when his term was cut short by the inauguration of a new government under a new state constitution.

Colonel Searle during this time served on the state board of education for several years; also as one of the trustees of the University of Arkansas from its inception in 1871 to the time of his departure from the State. He in part prepared the plan of organization and instruction for the institution.

In the fall of 1875 Colonel Searle returned to Illinois and located in Chicago. Later he removed to Pana, where he owned a large tract of land, and where he served for two terms as city attorney. In 1887 he returned to his old home in Rock Island County, Illinois. He retired from the active practice of the law and purchased a home in the city of Rock Island, where he lived until his death, August 18, 1906. The bar of Rock Island County attended his funeral in a body

and later held a memorial service attended by the members of the local bar, by members of the bar of surrounding counties and by judges of the circuit and supreme court of the State.

Colonel Searle is survived by his widow, Cassie (Pierce) Searle, to whom he was married in 1861, and by two children, Charles and Miss Blanche Searle.

T. M. Seawell was born at Yellville, Arkansas, August 24, 1873. He attended the public and private schools at that place until he was fourteen years of age, at which time he entered Central College at Fayette, Missouri, and afterwards Hendrix College while it was located at Altus, Arkansas. He then entered the law department of Washington and Lee University at Lexington, Virginia, from which he was graduated at the age of nineteen. He located in the practice of law at Little Rock and during the session of the general assembly in 1893, that body enacted a special law authorizing the supreme court to examine him and if found qualified to grant him a license to practice law. He was twenty years of age at that time. The examination was held and he was admitted to practice. He served about three years as deputy prosecuting attorney of that district, and was engaged in general practice in that city for about ten years. He is at present located at Springfield, Missouri, engaged in the practice of law, being a member of the firm of Hamlin and Seawell. He was a member of the board of trustees of the University of Arkansas under the administration of Governor Dan W. Jones, having been appointed to fill the unexpired term of W. H. Langford (1899-1900) of Pine Bluff. He was the youngest member ever serving on that board.

Jerry Curtis South was born at Frankfort, Kentucky, March 24, 1867, but came to Arkansas when he was six months old. He comes from a long line of illustrious ancestors. His father, Samuel South, was one of the Confederate soldiers who were voted medals by the Confederate Congress for gallant and meritorious conduct on the battlefield. His great-grandfather on the paternal side was General

Samuel South of the war of 1812. He was the witness whom Colonel Richard Malcomb Johnson relied upon for proof that it was he who killed Tecumseh in the battle of the Thames. Upon attaining school age Jerry Curtis South was sent to the public schools of Frankfort, Kentucky; and later to the Old Kentucky Military Institute, where he received the B. A. degree. He then took a law course in the University of Virginia. He has practiced law at Mountain Home, Arkansas, since 1889.

Jerry Curtis South.

For ten years Mr. South was a member of the Arkansas legislature. He has been a delegate to state and national Democratic conventions for twenty years past. He was appointed a member of the board of trustees of the University of Arkansas and he served about three years, until the State was redistricted in such a way as to leave the city of Fayetteville in the district which he then represented, and the member from this district was appointed from Fayetteville. During his service upon said board of trustees he worked to secure a visit of the legislature as a body to the university. Being delegated to address the legislature he spoke on the educational needs of the State, and particularly pointed out the inadequacy of the university buildings then in use. It was his effort during his service upon the board to eliminate politics from the affairs of the university and to make merit the only consideration in the selection and retention of members of the faculty. He has repeatedly stated that his service upon this board was the most interesting and agreeable public service ever

rendered by him, and always says that there was greater opportunity to accomplish something for the State of Arkansas in careful service upon this board than in any other position in any branch of the State's affairs. He was captain in the Arkansas volunteer infantry in the Spanish-American War, but was never sent to the front. He was married to Miss Ellen Chappel Hargis of Louisville, Kentucky, in December, 1908. Of this union one son, Jerry C. Jr., has been born.

Henry Stroup was born at Selma, Alabama, August 14, 1861. His father moved to Arkansas when Henry was a small boy. In 1878, at the age of seventeen, he entered the University of Arkansas and received the B. A. degree in 1883. After his graduation he entered the teaching profession and was principal of the high school at Charleston, Arkansas. During this time he studied law and was admitted to the bar in 1885. The same year he was elected representative of Logan County and in 1886 he was elected circuit clerk of Logan County. This position he held until 1890. At the outbreak of the Spanish-American War he recruited a company of one hundred and twenty-six men from Logan County, which entered the service in the first Arkansas volunteers as company K. Mr. Stroup was made captain of this company and served until the close of the war. He was appointed a trustee of the University of Arkansas in 1900

Henry Stroup.

and served eight years. He is at present a planter on an extensive scale, and is also engaged in the extension of the Arkansas Central Railway. He was married to Miss Ella Tittsworth in 1885. Of this union three sons, Almon, Henry Junior and Dwight, and three daughters, Zenia, Zinga, and Zeta have been born.

John Calvin Walker, son of John and Eleanor Walker, was born in Lafayette County, Mississippi, March 24, 1839. He came to Arkansas in 1857, where he received his early education. After having attended the common schools for a short time he entered the high school at Monticello, Arkansas. His education was abruptly terminated by the breaking out of the Civil War. After the war he taught in the rural schools for three years. He then entered the medical department of Tulane University, from which he was graduated in 1869. After his graduation he made his home at Calhoun, Columbia County, Arkansas. He served Columbia County for two terms in the state legislature, first in 1873 and again in 1877-79. It was during his first term in the legislature that he was appointed as a member of the board of trustees of the University of Arkansas. Dr. Walker was married to Miss Salena Katherine Caver in March, 1864. Of this union two sons and one daughter were born. He died in 1879.

John Calvin Walker.

William Nicholas Yates was born at Cane Hill, Washington County, Arkansas, December 18, 1851. He was educated at Cane Hill College, from which he received the B. A. degree in 1874. Dr. Yates' preceptor in medicine was the venerable Dr. W. B. Welch of Fayetteville, Arkansas. He graduated in medicine in 1878 at the old Missouri Medical College, now the medical department of Washington University, St. Louis. The first ten years of his professional life were spent at Cincinnati, Arkansas. He moved to Fayetteville in May, 1889, where he has since lived and engaged in a general practice. He was appointed a member of the board of trustees of the University of Arkansas by Governor Fishback in 1895, to fill out the unexpired term of Honorable J. N. Tillman, resigned. It was during Dr. Yates' term of service on the board that the university was changed from a summer to a winter school with a summer vacation. Dr. Yates was a strenuous advocate of this change and did all in his power to bring it about. From this change dates its greater growth and greater usefulness. Dr. Yates is a member of the Washington County Medical Association, and the Frisco System Medical Association, being a division surgeon on the Frisco Railway System. He is married and has one son and one daughter.

William Nicholas Yates.

III. The Presidents.

Noah Putnam Gates, son of Nathan and Carolina (Davidson) Gates, was born near Princeton, Caldwell County, Kentucky, November 18, 1832. His early education was obtained in church schools of Kentucky and Missouri. After having attended Chapel Hill College at Chapel Hill, Missouri, and Princeton College at Princeton, Kentucky, he entered the Illinois Normal University; later he became a student in the University of Michigan. He received no degrees from these schools, but in 1880 the board of trustees of the University of Arkansas conferred the A. M. upon him.

Noah Putnam Gates.

His early ambition was to enter the ministry, and his education had looked toward this calling. He took up teaching as a means of completing his education, and as his love for this work grew he was convinced that his greatest sphere of usefulness was in the school room. He was at the beginning of his career connected with public schools; six years at Charleston, Illinois; three years at Mattoon, and for a time at Little Rock, Arkansas. Successful work brought him more responsible positions, recognition in school circles of the State, and the friendship and advice of leading

educators. The rigorous winters of Illinois undermined his health, and in August, 1869, he resigned the superintendency of the school at Mattoon, to accept a similar position at Little Rock, Arkansas. In January, 1872, he resigned his position at Little Rock and accepted the work of organizing the University of Arkansas. As acting president of this institution his scope of usefulness was materially broadened. However, the presidency was not his chosen work; he accepted it on the understanding that he should be given the normal department as soon as a president could be secured. He acted as president of the institution until June, 1873, at which time he was made principal of the normal department. He served in this capacity until 1875, when he was again called to the presidency. He continued as president until 1877 when he was again made principal of the normal department. He resigned in 1884 to accept the superintendency of the Fort Smith schools. He continued as superintendent until 1889 when he returned to Fayetteville as superintendent of the schools there. In 1902 he retired because of illness.

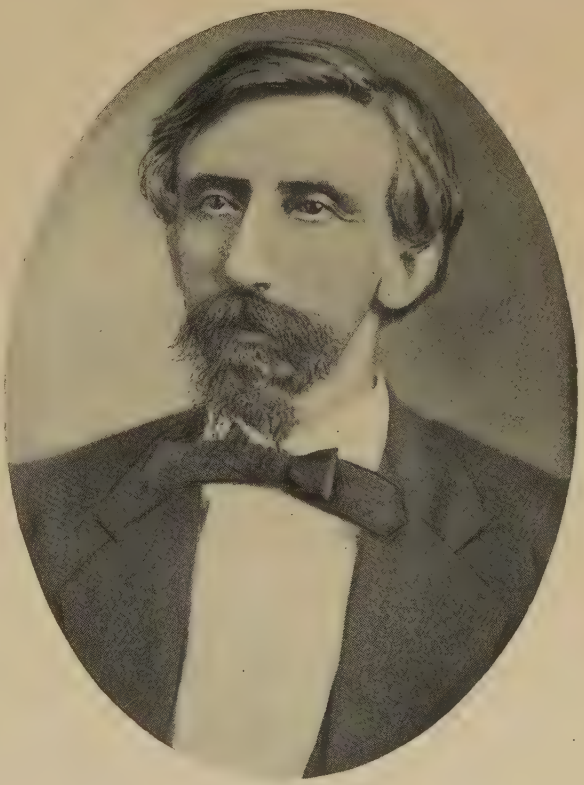
Professor Gates' services to the university in the early period of its existence were most valuable. The planning of work, employment of labor as well as teachers, the letting of contracts and the supervision of all classes of work devolved upon him; and at the same time he did much of the teaching. He also found time to come into personal touch with the students, and he availed himself of the opportunity to know them in a personal way, and to influence and direct their development. He was active in state educational matters and traveled much during vacation in the interest of the university, delivering lectures and holding institutes.

He soon recognized the disadvantages of Fayetteville's isolation and took an active part in every movement which promised railway connection. What is now the Frisco system is built largely over a route surveyed by an engineering party sent out by an organization of Fayetteville citizens, he being one of the active spirits. He is said to have paid a large part of the expense. He was also active in the development of Fayetteville and heartily supported any measures which improved the city. Mr. Gates was one of the pioneer educators of the State, having been the first superintendent and responsible for the first organization of the public school systems of Little Rock, Fort Smith, and Fayetteville.

He was married to Miss Lucy Cash, July 4, 1860. Nine children were the fruits of this union. He died at Little Rock, Arkansas, April 18, 1909, and was accorded a public funeral in the university chapel at Fayetteville, attended by the cadets.

Albert Webb Bishop, son of Calvin and Emily (Webb) Bishop, was born on January 8, 1832, in Alden, Erie County, New York. He received the degree of B. A. from Yale in 1853.

The year after graduation he was principal of Cortland Academy, Cortland, N. Y. He then studied law two years in Buffalo, was for a time connected with the firm of Bowen & Rogers, and afterward practiced by himself until 1860, when he removed to La Crosse, Wisconsin. From there he enlisted in the United States army in August, 1861, as second lieutenant of battery A, first Wisconsin light artillery, and was afterward captain of the second Wisconsin cavalry volunteers. He was then lieutenant-colonel of the first Arkansas cavalry volunteers, chief of cavalry of the district of southwestern Missouri, and commanded the post of Fort Smith, Arkansas. In 1864 he was appointed adjutant-general of Arkansas and, in order to devote



Albert Webb Bishop.

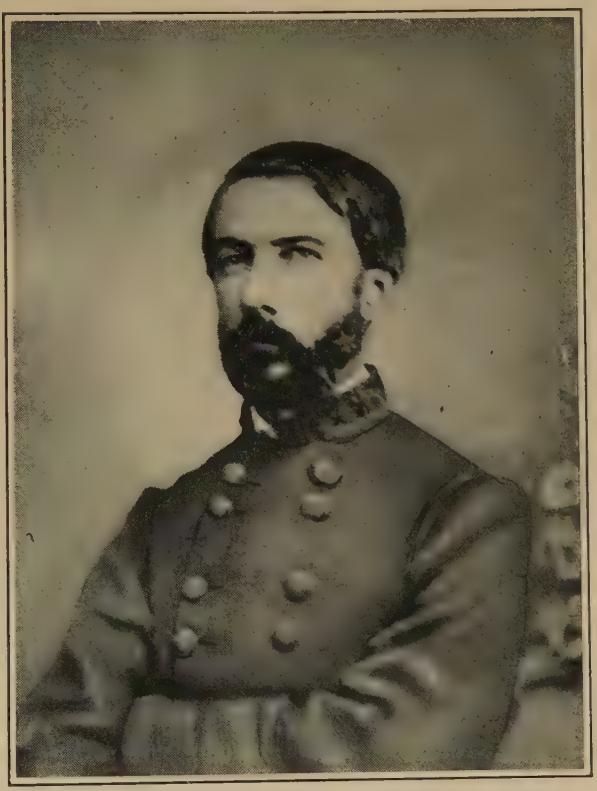
his attention fully to the office, resigned from the army in 1865. Two years later he became register in bankruptcy for the second district of Arkansas, and held that office until 1873. In 1871 the Arkansas Industrial University at Fayetteville was established by the legislature, and General Bishop became treasurer and one of its trustees, and from 1873 to 1875 was president. In 1875 he was again appointed adjutant general of the State, and the next year was the Republican candidate for governor of Arkansas. During most of his residence in the State his home was in Little Rock, where, beside his official duties, he carried on his law practice. In 1879 he returned to Buffalo and continued the practice of his profession. He was a public-spirited man and was one of the founders of the Young Men's Association, which preceded the public library. He was the author of "Loyalty on the Frontier."

He married Miss Maria L., daughter of Henry and Hannah (Hamlin) Woodard, of Cortland, N. Y., September 15, 1857. She died in Buffalo in 1860, and in 1871 General Bishop married Miss Kate Compton, of Little Rock, Arkansas. A daughter by the first marriage survives him.

General Bishop died suddenly of heart disease at Buffalo, on November 29, 1901, in his 70th year.

Daniel Harvey Hill was born at Hill's Iron Works, York District, South Carolina, July 12, 1821. He was the son of Solomon Hill and a grandson of two Revolutionary soldiers, Colonel William Hill and Thomas Cabeen. He spent his youth at his home, but later entered West Point, from which he was graduated in 1842 in the engineer corps. That being full he was assigned to the artillery. He went into the Mexican War as second lieutenant of artillery, but was promoted to first lieutenant for gallantry at Contreras and Churubusco. He was again promoted for gallantry, this time to the rank of captain, and was later made brevet major for gallantry in storming Chapultepec. The State of South Carolina presented him with a gold sword in recognition of the honor he reflected upon her in this war. In 1849 he resigned from the army and accepted the chair of mathematics in Washington College, now Washington and Lee University. He spent six years here, then accepted a similar chair in Davidson College, North

Carolina. After having served four years in this institution he resigned to enter the service of the North Carolina Military Institute, as superintendent. He continued in this position until the Civil War.



Daniel Harvey Hill.

When the call for volunteers came he responded and became colonel of the 1st North Carolina regiment. On May 6, 1861, in command of his regiment he fought the first land battle of the war, defeating General B. F. Butler. In September, 1861, he was promoted to brigadier general, and in February, 1862, he was made major general. To follow his career as major general would be to write a history of the army of Northern Virginia. He took a leading part in the Peninsular campaign, the Seven Day's Battle and the Maryland campaign. While participating in most of the great battles of the army of Northern Virginia his most noted services were at Seven Pines, Gaines' Mill, South Mountain and Sharpsburg.

After the battle of Fredericksburg he assumed command of the army in North Carolina, but was later recalled to take command of the defenses of Petersburg and Richmond. In July, 1863, President Davis appointed him lieutenant-general and assigned him to command in the army of

General Joseph E. Johnston. He was later changed to the army of General Bragg. He was in all the movements leading up to the battle of Chickamauga and took an important part in that battle.

At the close of the war he returned to North Carolina and established a monthly magazine, "The Land We Love," at Charlotte. This paper was devoted to the literature and history of the South. In 1869 it was merged with the "New Eclectic Magazine" of Baltimore. General Hill then established a newspaper, "The Southern Home." This continued in circulation until the reconstruction government disappeared from the State. It was no longer needed. In 1877 General Hill accepted the presidency of the University of Arkansas. His administration is one of the most efficient in the history of the institution. He dropped some of the lower classes of the preparatory department, reintroduced the demerit system, raised standards, increased the attendance and brought the university to the attention of the State. General Hill himself taught mental and moral philosophy and political economy. He won the confidence and esteem of his students and was affectionately called General Hill by them. He had a somewhat stern demeanor, but was of a kindly disposition. The unpardonable sin in his eyes was drunkenness. If a boy drank intoxicating liquors and the fact came to the attention of the general, the boy was promptly expelled. He insisted that the degree of intoxication was of small consequence and refused to distinguish between a "gentlemanly tight" and a "beastly drunk." He was a devout christian and impressed the students with the necessity of a religious life.

In 1882 the board of trustees conferred on him the degree of LL. D. For a fuller statement of his work in connection with the university see the chapter devoted to his administration. He resigned in 1884 and went to southern Georgia for his health. After resting a year he accepted the presidency of the A. & M. College at Milledgeville. His son, D. H. Hill, Jr., was in the faculty and relieved him of many of the burdens of administration, but failing health compelled him to resign in 1889. He returned to his old home in Charlotte, North Carolina. He died there September 24, 1889, and was buried at Davidson College, North Carolina.

General Hill was married to Miss Isabella Morrison on November 24, 1848. Of this marriage were born nine children, five of whom are living, viz., Eugenia, wife of Thos. J. Arnold, of Beverly, West Virginia; Dr. Randolph W. Hill, Los Angeles; Miss Nancy Lee Hill, D. H. Hill, Jr.,

vice-president and professor of English, North Carolina A. & M. College, and Joseph M. Hill, ex-chief justice of Arkansas, Fort Smith.

George Mathews Edgar, LL. D., was born March 1, 1837, at Union, Monroe County, Virginia, of Scotch-Irish parentage. After receiving an elementary education, he entered the Virginia Military Institute at Lexington, January 1, 1853. He graduated in July, 1856, fifth in his class. The institution conferred no degrees. A year later he became assistant professor in his alma mater and assisted Major William Gilham in giving laboratory instruction in chemistry. In 1859 he accepted the professorship of natural philosophy and astronomy in the North Carolina Military Institute at Charlotte, and in the autumn of the following year he became professor of natural science in the Florida State Seminary at Tallahassee, where he was at work when the Civil War broke out.

George Mathews Edgar.

April 2 Professor Edgar enlisted as a private, and at Fort Barancas, near Pensacola, he served as sergeant-major and drill master of the first Florida regiment. Soon after the secession of Virginia he obtained a discharge, returned to his native state, and

assisted in raising a company in his home county, of which he was made first lieutenant. His company took part in the Kanawha Valley campaign, and as a result Professor Edgar was made captain. Detached from the Wise legion in the winter, his company became one of five companies to form a battalion, the 26th Virginia, sometimes called Edgar's battalion, of which he was elected major, in the spring, and later lieutenant-colonel. As commander of this battalion he, for three years, participated in many engagements, chief of which were the battles of Lewisburg, where he was shot through the chest, and Rocky Gap, New Market, Second Cold Harbor and Winchester, where he and his company rendered important service. At Winchester he was captured and for a time he suffered the misfortunes of a prisoner. He was later paroled because the condition of his health rendered him unfit for service. He was later exchanged, and recovering his health he recruited a brigade which he commanded until Lee's surrender. The ladies of Lewisburg presented him, in 1863, a sword in honor of his service in defending the town. The courage and efficiency of Colonel Edgar in war are attested by the reports of superior officers to be found in the Records of the War of the Rebellion.

The war over, Colonel Edgar entered the University of Virginia in order to prepare himself more thoroughly for the work of an educator. Here he studied mathematics, physics and chemistry until the spring of 1866, when he accepted the chair of mathematics in Oakland College, Mississippi. Here he taught for two and a half years, also being chairman of the faculty for a time. Here he married Miss Rebecca Fry, daughter of Judge Joseph L. Fry, of Lewisburg, West Virginia. Of this marriage two daughters and four sons were born. All received a college education. His son, George, an electrician, was killed by electricity in 1898; John Edgar is a wholesale grain merchant in Memphis; a third son, Bliss, is principal of Edgar's School for Boys at Montgomery, Alabama; Graham Edgar, a Ph. D. of Yale, is instructor in chemistry in the University of Virginia; his two daughters are the wives respectively of Dr. J. T. Vansant, of Bowling Green, Kentucky, and Professor Ormond Somerville, of the law department of the University of Alabama.

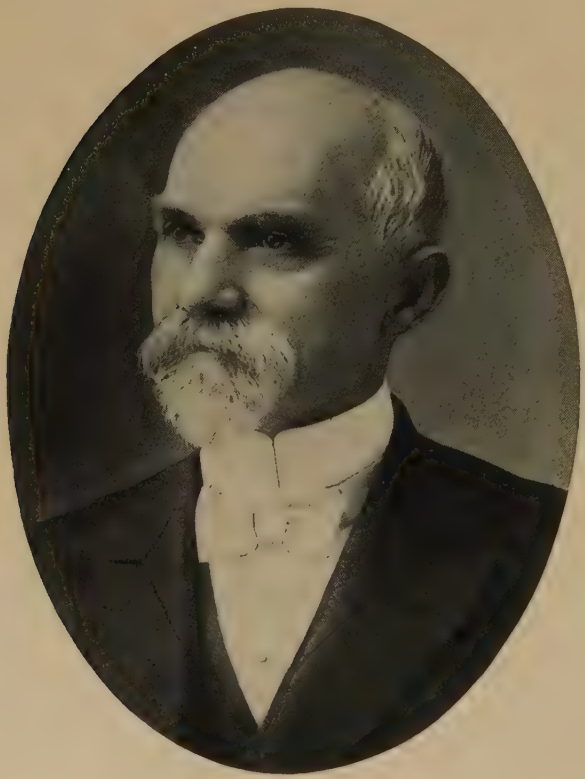
In 1868 Colonel Edgar resigned his position in Oakland College and for fifteen years he conducted schools for boys and girls in Kentucky, Franklin Female College, Edgar Institute, Anchorage Training School

for Boys, and Bowling Green Female College. In June, 1884, he was elected president of the University of Arkansas. He assumed the office at a time when there was a bitter controversy in the faculty. He attempted to administer the institution with the old faculty of General Hill. In this he was only partly successful. However, the general assembly of 1885 relieved him of further embarrassment by calling for the reorganization of the university. Upon the basis of this act the board made a clean sweep of the whole faculty and gave the president a new corps of instructors. His administration is also marked by the growth of an agrarian movement in the State, which culminated in 1887 in an act calling for the complete reorganization of the university along agricultural and industrial lines. To this legislation Colonel Edgar, though he had favored industrial education, was opposed, and feeling himself out of touch with the new situation, he resigned in June, 1887.

A few weeks after his resignation Colonel Edgar accepted the presidency of the Florida State Seminary at Tallahasse, where he had served as professor before the war. During the five years of his connection with the seminary he added to its buildings, raised its course of study and strengthened its equipments. From here he went to the University of Alabama in 1892 as professor of physics and astronomy, where he secured the necessary appropriation with which to enlarge the equipment of the department. Since his retirement from the university in 1898 he has served as professor of science in Occidental College, California, and as principal of training schools in Tennessee and Kentucky, and has lectured on "Stonewall Jackson." He has prepared and delivered many addresses on scientific and pedagogical subjects, but has never published them. He is living at Paris, Kentucky.

Edward Hunter Murfee, son of James Wilson and Margaret (Parker) Murfee, was born at Murfee's Depot, Southampton County, Virginia. When about sixteen years old he entered the University of Alabama, from which he received the degree of Master of Arts. He was a member of the Alabama Corps of Cadets when it was mustered into the Confederate service. The LL. D. was conferred upon him by Bethel College, Kentucky, and by Wake Forest College, North Carolina. He was elected

to a membership in the American Society for the Advancement of Science and offered a scholarship in the London Society of Science. At the age of about twenty-two he taught school in Demopolis, Alabama, from which place he went to New Orleans and entered commercial life.

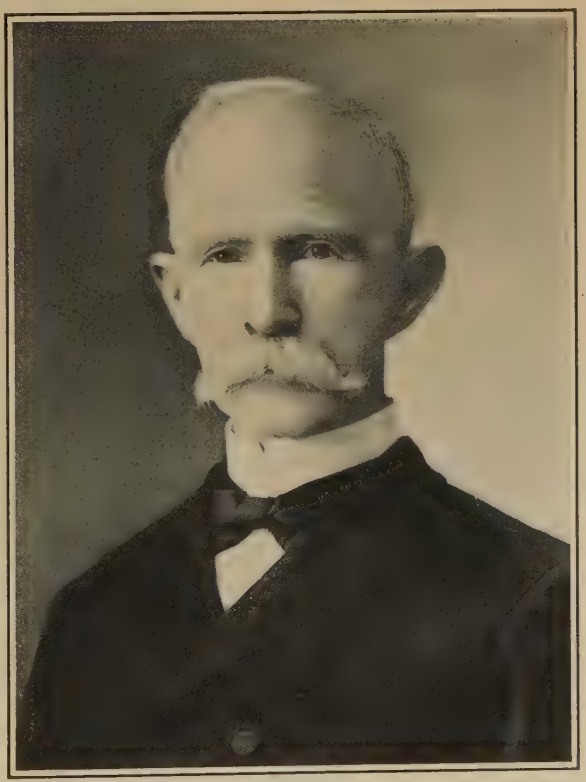


Edward Hunter Murfee.

At the age of twenty-six he was given the chair of military engineering in his alma mater, the University of Alabama. From this place he went to the University of Tennessee and filled the chair of English. Leaving this college, he moved to Mississippi and organized the Mississippi Military Institute, securing for it, through Senator L. Q. C. Lamar, the first army and military equipment, detailed for school purposes in Mississippi. The school was first located at West Point, Mississippi, was moved to Aberdeen and finally to Pass Christian, where it secured patronage from many states, but principally from the city of New Orleans. After the burning of the institute at Pass Christian, Dr. Murfee, in 1885, was elected to the chair of mathematics and logic in the University of Arkansas, which chair he held two years, when he was appointed acting president for one year. At the expiration of this time, he was elected president and continued in this

position until 1894, thus having spent about nine years in the university. He had the gratification of seeing a large increase in attendance during his administration. His last report to the board of trustees showed an enrollment of about seven hundred students in the departments at Fayetteville, over nine hundred including all departments. From Fayetteville he was called to the Alamaba Central College at Tuscaloosa, Alabama, and since has filled chairs in other colleges. He has been at Brenau College, Gainesville, Georgia, about five years, where he is dean of the faculty and professor of natural science. He was married to Miss Odella Oter Manning. Of this union three sons and three daughters were born; John Manning, Harvard and Sidney and Nellie, Gertrude Otts and Alice Odella.

John Lee Buchanan, son of Patrick C. and Margaret (Graham) Buchanan, was born in Smyth County, Virginia, June 19, 1831. Both his parents were of Scotch-Irish descent. He was brought up on his father's farm, in a comparatively new country and received his early education in his own and adjacent neighborhoods. In 1848-49 he was a clerk in a mercantile house. In this position he received a valuable business training and for this and other reasons he was offered a



John Lee Buchanan.

partnership in the house, which he declined. In the summer of 1850 he taught a private school and during the winter following pursued his studies under an efficient teacher. In 1851 he entered Emory and Henry College and during the year 1853-54 he was employed as an assistant instructor in the college. In June, 1855, he won the oratorical prize. He graduated in 1856 with the highest honor of his class and also won the prizes in Latin and Greek. During the two years following his graduation he filled the chair of ancient languages in his alma mater, taking the place of Prof. W. E. Peters, then on leave of absence in Europe. In June, 1858, he was elected professor in the same institution, and a year later was given the M. A. degree.

During the war between the states he served in a section of the ordnance department of the Confederate government, superintending the collection and shipments of ammunition materials to that department in Richmond, Virginia. After the war closed Emory and Henry College was reopened and Professor Buchanan resumed the duties of his chair and continued therein until 1878. He resigned in that year, having been elected to the chair of Latin in Vanderbilt University. In June, 1877, Emory and Henry College conferred upon him the degree of LL. D. In 1879 he was elected to the presidency of Emory and Henry College, but he did not continue long in that position, as he was invited to take charge of the Virginia Agricultural and Mechanical College with a view to the reorganization and betterment of that institution. In 1884 he was appointed, by the legislature of Virginia, a member of the board of trustees to organize the State Female Normal School. The same year he was offered a professorship in the University of Tennessee, but withdrew his acceptance on his election by the legislature of Virginia in 1885 to the office of state superintendent of public schools. By virtue of this position he was an ex-officio member of the board of trustees of the University of Virginia. He took an active part in reorganizing the College of William and Mary, and was urged by the board of trustees to accept the presidency of that institution, but he declined because of his purpose to complete his term as state superintendent.

After his term expired in 1889 he resumed his profession, and in 1890 was elected to the chair of Latin in Randolph-Macon College. In 1894 he was elected to the presidency of the University of Arkansas, which

position he held until 1902 when he voluntarily resigned because of impaired health and advanced age. On his accession to the presidency he exerted his energies to bring the institution before the people of the State, and to enlist their sympathies in the work that it was doing. He labored to build up all the departments of the institution, to raise the standard of scholarship, and to improve the moral atmosphere. During Dr. Buchanan's administration the vacation was changed from winter to summer; the B. class in the preparatory department was abolished; the chair of economics and sociology was established and a professor appointed therein; the department of history was detached from pedagogy and made an independent department; the departments of civil and electrical engineering were detached from mechanical engineering and made separate departments. The department of elocution and physical culture was reorganized and provided with quarters. A mechanical hall was erected; Hill Hall, a dormitory for boys, was opened; the campus was improved and many other valuable improvements were made. Valuable additions were made to the general library. Dr. Buchanan's only published writings are contained in the annual school reports of Virginia for the years 1887-90; in the Virginia School Journal for the same year, and in the biennial reports of the board of trustees and officers of the University of Arkansas for the years 1894-02. He was married to Miss Frances Elizabeth Wiley on August 4, 1859. Of this union nine children were born, five of whom survive. He is now living in Fayetteville, Arkansas.

Henry Simms Hartzog was born in Barnwell County, South Carolina, July 17, 1866. His parents were Samuel J. and Mary (Owens) Hartzog. He received his elementary education in the common schools. In 1882 in a competitive examination he was awarded a state beneficiary in the South Carolina Military Academy, from which institution he took the B. S. degree in 1886. He thereupon entered and graduated from the Southern Baptist Theological Seminary at Louisville, Kentucky. He received the LL. D. degree from Mercer University in 1900.

After graduation he entered educational work and has continued an educator since. He was superintendent of Johnston Institute until 1897,

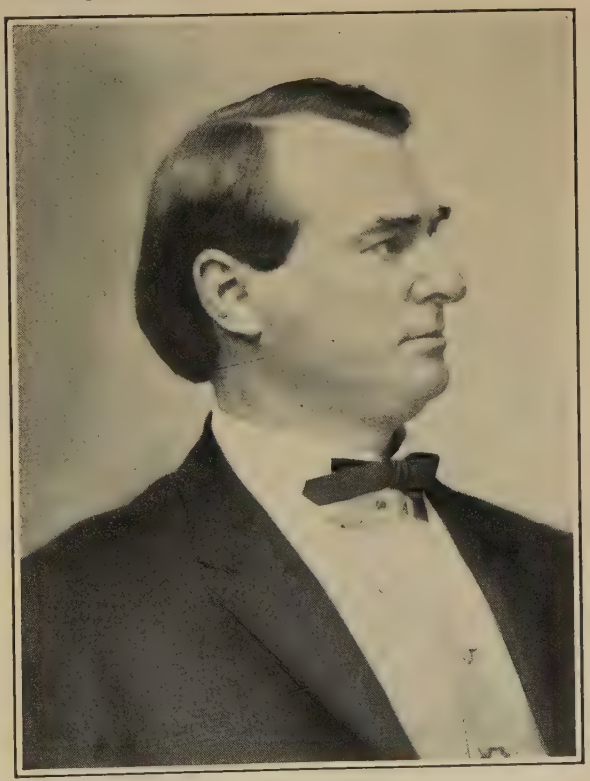
Henry Simms Hartzog.

when he was elected to the presidency of Clemson Agricultural College, Clemson, South Carolina. This position he held until 1902. For the same period he was director of the Experiment Station of South Carolina, operated in connection with the college. From 1902 to 1905 he was president of the University of Arkansas. He is a happy speaker and a man of energy and enthusiasm. In the short time of his administration he succeeded in bringing the university prominently before the people of the State, secured a more liberal support at the hands of the legislature, and increased the attendance. His administration is also noteworthy for the new buildings provided. In 1903 the Engineering Hall was secured, and in 1905 appropriations were secured for six buildings—agriculture, chemistry, dairy, infirmary and two dormitories. The teaching force was materially increased.

Dr. Hartzog has also served as an advisory committeeman of the National Good Roads Association. He has been an active worker for good roads as well as for popular education. He has also been in demand as a chautauqua lecturer. Since 1907 he has been president of Ouachita College. His most important service to that institution has been in

inspiring greater confidence in the institution, in heading a movement to pay off the debt and in paying the teachers better salaries.

John Newton Tillman was born near Springfield, Missouri, December 13, 1859. When he was but a boy his parents moved to Washington County, Arkansas, where he received his early education in the public schools. After leaving the public schools he entered the University of Arkansas, from which he was graduated in 1880 with the degree of Bachelor of Latin Letters. After his graduation he entered the teaching profession and taught in the public schools of Arkansas for three years. From 1881 to 1883 he was county examiner of Washington County. During his career as a teacher he studied law and was admitted to the bar in July, 1883. He was then elected circuit clerk of Washington County and served in that capacity for four years, 1884-1888. He served one term in the state senate, 1889-1891. After this he was elected prosecuting attorney for the fourth judicial district in 1892, which position he held for six years. In 1899 he was made circuit judge of the fourth judicial circuit. During his term as



John Newton Tillman.

circuit judge he rendered invaluable service to Arkansas by strict enforcement of the liquor laws and in breaking up the illicit traffic in whiskey. He is the author of the decision that the holding of a federal license in prohibition territory is prima facie evidence of guilt and is sufficient to warrant an indictment of the one who holds such license. The decision was upheld on appeal. Since leaving the bench President Tillman has taken an active interest in the prohibition cause and has made many addresses in its behalf. For the past four years he has lectured extensively on chautauqua and lyceum courses in Kansas, Arkansas, Missouri and Oklahoma. He is also an author and has contributed stories to various magazines. He is a member of the Arkansas State Teachers' Association, the National Association of State Universities and the National Educational Association. In 1907 the University of Mississippi conferred on him the degree of LL. D.

In 1905 Judge Tillman was somewhat unexpectedly called to the presidency of his alma mater. While he had been out of the teaching profession for many years, his interest in the institution had been practically continuous since his graduation. He first served as president of the alumni association. While in the senate he was active in promoting the welfare of the University and was instrumental in securing the repeal of some laws which hampered its development. From 1893 to 1895 he served on the board of trustees and was one of the most active members during that time. In addition to these public services his executive abilities were well known and were thought to be such as to fit him for the presidency. He at once took hold of the work and has prosecuted it with vigor ever since. The more noteworthy achievements of his administration are the development of the College of Agriculture, raising of the entrance requirements, the abolition of the A class in the preparatory department and the prospective abolition of the entire department in 1911, and the large increase in the instructional force and the number of students. The former has grown from forty-six in 1904-5 to ninety in 1908-9; the latter from 810 to 1,133 in the same period. The most gratifying increase among the students has been in the collegiate department, from 381 to 620.

March 4, 1885, President Tillman was married to Miss Temple Walker. Of this union three children have been born, John W., Fred A. and Kathleen.

IV. The Faculty.

Charles Frederick Adams, son of William Carroll and Sarah (Herd) Adams, was born at Atherton, Missouri, April 4, 1877. Both his parents were of Virginian families. He spent his early years on a farm near his native town. After his tenth year his parents moved to Independence, Missouri, and later to Excelsior Springs. At the age of sixteen he entered the college of agriculture in the University of Missouri. He graduated in 1897 at the age of twenty with the highest honors of his class. In the fall of 1899 he entered the sophomore class in the Kansas City Medical College, which later affiliated with the University of Kansas. In the medical school he was assistant in the laboratories of histology, pathology and bacteriology in the Kansas City Dental College, a position which he held until 1904. He received the M. D. in 1902 and took up residence in Lawrence, Kansas. In the University of Kansas the Snow research scholarship in entomology was created for him. This position, together with the above-mentioned chair of histology, he held until June, 1904. The year previous he received the A. M. from the University of Kansas. In 1904 he entered the graduate school of the University of Chicago, where he held a position as assistant in the department of zoölogy. The following summer he was a student at the Marine Biological Laboratory at Wood's Hole, Massachusetts.

Charles Fredrick Adams.

In the fall of 1905 he entered upon his duties as entomologist in the Arkansas Experiment Station at Fayetteville. He was made acting director of the agricultural experiment station in November, 1908, and the following year was made dean and director of the College of Agriculture. He is a member of the American Association for the Advancement of Science, the Association of Economic Entomologists, the Entomological Society of America, and the honorary scientific society, Sigma Xi. He is the author of the following publications:

"The Tachina and Syrphus Flies of Jackson County," Nautilus, Kansas City, 1900; "Dipterological Contributions," Kansas University Science Bulletin 11, No. 2, 1903; "Descriptions of Six New Species," Ibid. II, No. 14, 1903; "Notes and Descriptions of North American Diptera," Ibid. II, No. 14, 1903; "Descriptions of New Oscinidæ," Entomological News, XV, 303, 1904; "On the North American Species of Siphonella," Psyche, II, No. 5, 1904; "On the North American Species of Oscinis," Entomological News, XVI, No. 4, 1903; "New Species of Mycetophilidæ," in Banta's "Fauna of Mayfield's Cave," 1905; "Diptera Africana," Kansas University Science Bulletin, III, No. 6, 1905; "Notes on North American Crassiseta v. Ross," Journal New York Entomological Society, September, 1908; Manuscript for the "Families of Tachinidæ and Dexiidæ" in the third edition of Williston's Manual of the North American Diptera, 1908; "Some Insects of Orchard and Other Fruits," Bulletin No. 2, Arkansas Experiment Station, 1907; "The San José Scale in Arkansas," Bulletin No. 102, Arkansas Experiment Station, 1908.

Carroll F. Armistead was born in Arkansas April 18, 1872. He received his early education in the common schools of his state, and later entered the University of Arkansas, from which he was graduated in 1893. He entered the army of volunteers in May, 1898, and was made captain of a company of the Arkansas infantry. After being honorably discharged from the volunteers he was appointed second lieu-

tenant of artillery in 1898. He was made second lieutenant of the second artillery in July of the same year. He served in this capacity until 1901, when he was made first lieutenant of the artillery corps. In October of the same year he was made captain of the artillery. He was transferred to the twenty-first infantry with the rank of captain. He was detailed for service in the University of Arkansas as professor of military science and tactics and commandant of cadets August 31, 1907. This position be held for two years, when he resumed command of his company and sailed for the Philippines.

Carroll F. Armistead.

Robert Love Bennett was born in Lee County, Alabama, November 16, 1868. He entered the Alabama A. and M. College and graduated in 1888, receiving the B. S. degree. Two years after his graduation he served on the United States River Survey. During the year 1901-02 he was in charge of a branch of the Arkansas Experiment Station at Newport. From 1902 to 1903 he was director of the Arkansas Experiment Station. In 1903 he accepted the position as director of the Texas State Farmers' Institute. He served in this capacity only one year when he accepted the position as specialist to the Texas Experiment Station in cotton-breeding investigation, and special agent for the United States department of agriculture. He held this position until 1908. He then accepted the position as expert in cotton marketing, United States department of agriculture,

which position he now holds. He is author of many scientific bulletins on agricultural subjects. His latest publication is a report on cotton breeding. He was married to Miss Kate Minor Watson in 1892.

William Burdelle Bentley, son of William H. and Elizabeth (Cummings) Bentley, was born at Maple Valley, New York, August 8, 1866. He was prepared for college at Phillips Academy, Andover, Massachusetts, 1882-85, and, entering Harvard College the latter year, was graduated in 1889 with the degree of B. A., and with the highest honors in chemistry. A year later he received the degree of A. M., and that of Ph. D. in 1898. Upon graduation in 1889 he was appointed assistant in chemistry in Harvard College, remaining until 1891, when he accepted the position of adjunct professor of chemistry and physics in the University of Arkansas. In 1894 he became associate professor, resigning six years later to accept the chair of chemistry in Ohio University, which latter position he continues to hold. During the summer of 1890 he was assistant chemist in the United States Torpedo Station at Newport, Rhode Island. He was secretary and treasurer of the Fayetteville Telephone Company from 1895-1899. In politics he is independent, and he is a member of the Unitarian Church. He is a fellow of the American Association for the Advancement of Science; member of the Society of Chemical Industry and of the American Chemical Society, and honorary fellow of the Society of Biological Chemistry (England). He is also an Athens Commandery Knights Templar. He was married at Cambridge, Massachusetts, December 15, 1891, to Susan Prescott, and has two sons: William Prescott, born in 1894; and Harold Jackson, born in 1897.

Hugo Bezdek, son of James and Frances (Hanner) Bezdek, was born in Prague, Austria, in 1883. He entered the University of Chicago in 1902, from which he was graduated in 1905. He then became physical director in the University of Oregon for the scholastic year of 1906-07. In 1907 he returned to the University of Chicago and

took graduate work and also assisted A. A. Stagg in the department of athletics. He remained there one year. He was made director of athletics in the University of Arkansas in 1908. He is a member of the Society of Directors of Physical Education in Colleges, marshal at the University of Chicago, Senior Honor Society, and the Phi Kappa Sigma fraternity. He was married to Miss Victoria A. Johnson in 1906. One son has been born to them.

Hugo Bezdek.

Benjamin J. Borden, son of Dr. Levi and Charlotte (Beck) Borden, was born in Dublin County, North Carolina, October 23, 1812. He graduated at the University of North Carolina and studied law at Georgetown, D. C., where he also graduated. In 1840 he moved to Arkansas, where he practiced his profession until 1843. He then began his career as an editor and this continued until 1849. From that time to 1865 he was head of various institutions of learning in Arkansas, among them the college for young women at Tulip. He then taught at Washington, Arkansas, and later at Princeton. In 1867 he moved to Kentucky and from that time until his death he taught as principal in the following schools: Stanford, Kentucky, 1867-68; Somerset, 1868-70; Perryville, 1870-75, and in 1877-79 at La Grange, again at Somerset, 1880-87. He returned to Arkansas

in 1875 and taught at Washington, 1875-76. During the year 1876-77 he taught mental and moral philosophy in the University of Arkansas. He was married to Miss Sara Geiser October 29, 1844. Three sons and four daughters were born of this union.

Wolf Detleff Carl Böteführ was born in Holstein, Germany, in 1833. He came to America at an early age. When very young he gave evidence of talent and originality and, having the advantages of a refined home, his predilections for music were encouraged, and his education was received from some of the best masters in Europe. He has held many important organ positions, among them being that of organist at the First Methodist Church in St. Louis, Missouri. He resigned his position as organist to accept the position as director of music in the University of Arkansas in 1872. He remained here until 1881, when he resigned and moved to Fort Smith. As a theorist he occupied the foremost position in the Southwest and many of his pupils occupy the first rank in the musical profession. He trained and developed the famous violinist, William Worth Bailey. Professor Böteführ was a very prolific and successful composer. His writings include many vocal and piano solos. Some of the best known are "A Nicene Creed," a number of Te Deums and several complete masses for the Episcopal service,

Wolf Detleff Carl Böteführ.

"Song of the Bells," "Transient and Eternal Moonlight on the Poteau," "Broken Vow," and "Lillie Adair."

Charles Hillman Brough, son of Charles Milton and Flora (Thompson) Brough, was born in Clinton, Mississippi, July 9, 1876. His father was a prominent mining man and banker of the west, formerly mayor of Ogden, Utah, and his mother was for many years principal of Central Female Institute, the oldest private female seminary in Mississippi. For six years Dr. Brough resided in Utah with his parents, but returned to his native State to enjoy, under the direction of his uncle and aunt, Dr. and Mrs. Hillman, the educational advantages offered by the two institutions of learning located in Clinton. Graduating from Mississippi College with the honors of his class in June, 1894, he subsequently pursued a three years' post-graduate course in economics, history and jurisprudence in the Johns Hopkins University at Baltimore. While there he was awarded the fellowship in economics on his doctor's dissertation, "Irrigation in Utah," which received complimentary reviews from the leading French, German and American publications. In June, 1898, he received the doctor's degree from Johns Hopkins University. At the same time he received notice of his election to the chair of philosophy, history and economics in his alma mater, Mississippi College, succeeding in this work Dr. W. S. Webb, the former president of the college. In June, 1901, Dr. Brough resigned his position in Mississippi College

Charles Hillman Brough.

to study law in the University of Mississippi. Completing the two years' law course in one, he received the degree of Bachelor of Laws from this institution in June, 1902. Upon the completion of his law course at the University of Mississippi, he was offered the chair of economics in Hillman College, which had been established by his uncle at Clinton, Mississippi. He was identified with this institution for one year. In June, 1903, he accepted the chair of economics and sociology in the University of Arkansas. During his seven years' connection with the University he made several active summer campaigns in its interest and has built up one of its most flourishing departments. Dr. Brough is a writer and speaker as well as a teacher. He is the author of "Irrigation in Utah," submitted as his doctor's dissertation; "The History of Taxation in Mississippi," "The History of Banking in Mississippi," "Historic Clinton," "The Clinton Riot," "The Industrial History of Arkansas," "Historic Battlefields and Homes of Arkansas," and has a book on "The Political Problems of the Present" almost ready for the press. His lectures on "The Glory of the Old South and Greatness of the New," "America's Conquest of the World," "The Elements of Success in Life," "The Wit and Wisdom of Great Americans" and "God in History" have won him a place on the Southern platform. He is a member of the Arkansas Historical Association, the Mississippi Historical Society, the American Academy of Social and Political Science and the American Economic Association. On June 17, 1908, Dr. Brough was married to Miss Anne Wade Roark, of Franklin, Kentucky.

William M. Bruce was born in Boyle County, near Danville, Kentucky, on a farm which had been in the family since about 1800. When he was four years old his father died and four years later his mother moved to Missouri. When he was fourteen years old his mother moved to Sedalia, Missouri, where he attended the high school for several years. In 1890 he moved to Fayette, where he entered the preparatory department of Central College. In 1896 he graduated from Central College with the B. A. degree. Shortly after his graduation he was elected to the chair of natural and physical sciences in Hendrix College at Conway, Arkansas. He remained at this place for four years, during which time he obtained the A. M. degree from Central College. The summers of 1898 and 1899 were spent in graduate study at the University of Chicago, and in 1899 he was awarded a

scholarship in chemistry. In 1900 he resigned his position at Hendrix College to accept a fellowship in chemistry at the University of Chicago. He held this fellowship three years. In 1902 he did some chemical work for the International Harvester Company, and also for the Kennicott Water Softener Company, of Chicago and London. In 1900 he was appointed chief chemist for the Kennicott Water Softener Company, which position he held until 1907. In 1908 he obtained patents, American and foreign, for water softening apparatus and was made chemical engineer for the Kennicott Water Softening Company. In August, 1908, he was made chemist at the Agricultural Experiment Station of the University of Arkansas. He is a member of the M. E. Church, South, and of the Sigma Nu Fraternity. In 1898 he was married to Miss Ethel Howard, of Morrilton, Arkansas. Of this union one son, William, has been born.

De Rosey C. Carbell was born in Arkansas, July 7, 1861. He entered the Military Academy at West Point July 1, 1880. He was made second lieutenant of the eighth cavalry in June 1884. He continued in this position until 1891, when he was made first lieutenant of the fifth cavalry. He was transferred to the eighth cavalry in 1899 and again transferred in 1902, this time to the first cavalry. He was made colonel of the second Arkansas infantry in May 1898. He was honorably mustered out of the volunteers in February, 1899. Lieutenant Carbell was detailed for service as commandant in the University of Arkansas, July 29, 1887, and served until December, 1891.

J. H. Carmichael was born at Cairo, Illinois, Feruary 2, 1868. From 1884 to 1887 he attended the Fort Smith district high school at Booneville, Arkansas. After leaving here he attended the Paris academy at Paris, Arkansas, 1887-90. In 1890 he was appointed surveyor of Logan County, Arkansas, by Governor Eagle; the same year he was elected to the office and served one term. In February, 1893, he was licensed by the supreme court to practice law. He graduated from the law department of the University of Arkansas as the honor man in his class in June, 1894. He was elected acting dean of the law department by the alumni in April, 1898, and was elected dean by the board of trustees in 1901. He has also served as special circuit and special supreme court judge. He

formed a law partnership in 1906 with W. B. Brooks and R. C. Powers. He is a member of the alumni association of the law department of the University of Arkansas and was elected its first president in 1893. He was married to Miss Amelia Parker, January 10, 1893. Of this union four children have been born.

Charles Geiger Carroll, son of Francis Barbour and Emma Virginia Carroll, was born at Ashland, Kentucky, October 15, 1875. The first nine years of his life were spent in West Virginia, seven of the succeeding years in Colorado, and the fourteen following in Texas and Maryland. Since the latter part of the year 1905 he has been resident in Arkansas at the university. His primary education was obtained at home under the tuition of his parents; his secondary education was had in the Pueblo Collegiate Institute and Central High School of Pueblo, Colorado, and in the preparatory department of the University of Denver, Denver, Colorado. At the age of fifteen years he entered the freshman class of the university of Denver, but his studies were broken off by a removal to Texas, where for one year he was instructor in languages and mathematics in a private secondary school at Henrietta, Texas, and principal of one of the ward schools of Greenville, Texas. In the meantime he had been carrying on his studies privately, and in the fall of 1895 he entered

Charles Geiger Carroll.

Southwestern University, graduating with the B. A. degree in 1896, and with the M. A. degree in 1897.

During the years 1897 and 1898 he was instructor in Latin, English, French, chemistry and physics in Southwestern University. Up to this time it had been his intention to devote himself to the study of languages, especially the Romance languages and Latin. His selection in 1898 as assistant professor of chemistry in Southwestern University changed the bent of his efforts and from that time on his studies were, for the most part, scientific.

He was successively assistant professor, associate professor, and from 1902 to 1905, professor of chemistry in Southwestern University. For two years (1901-1902 and 1903-1904) he did graduate work in the departments of chemistry and physics in Johns Hopkins University, and in 1904 received the Ph. D. degree from that institution.

Since 1905 he has been professor of chemistry in the University of Arkansas, and since 1907 secretary of the faculty. He is a member of the American Chemical Society and of the Chemical Club of Johns Hopkins University. He has published the following scientific articles: "The Freezing-point Lowering of Aqueous Hydrogen Peroxide Salt Solutions," American Chemical Journal, 1902; "The Conductivity of Solutions of Salts in Water, Methyl and Ethyl Alcohols and Binary Mixtures;" "The Connection between Conductivity and Viscosity," Dissertation, 1904, reprinted in the American Chemical Journal, 1905; "Ionic Hydration and Ionic Velocity," American Chemical Journal, 1907. William R. Jenkins and Company, of New York City, will shortly issue a work prepared by him in collaboration with Professor Antonio Marinoni, "French Lyric Poets of the Post-Romantic Period." He has ready for publication an article on electrical conductivity and periodic law, and in course of completion researches on acetylene compounds of copper (including the isolation of hydrogen copper acetylide), and a text-book on qualitative analysis treated from the standpoint of theoretical chemistry. In 1907 he, with W. H. Adams, was granted a patent for a solder for aluminum.

Professor Carroll has always been interested in music and instituted the Glee Club of the University of Arkansas, of which he has been musical director since its inception.

In 1907 he was married to Miss Ruby Rothwell of Denver, Colorado, daughter of Edwin James Rothwell, M. D., and Augusta More Rothwell, M. D.

Joseph William Carr, Ph. D., was born in Hampstead, New Hampshire, January 15, 1870, son of Eben and Sarah (Bradshaw) Carr. His preparation for college was made at Phillips Exeter Academy, Exeter, New Hampshire, where he spent four years. He stood high in his classes and was made president of the Golden Branch, a literary society, to which many famous men have belonged. In 1889 he entered Harvard University and completed the four-year course in three years with success and honors, receiving his degree *magna cum laude.* The fourth year, 1893, he received the degree of Master of Arts. He and a few others were the means of getting Theta Delta Chi to reëstablish at Harvard. After leaving Harvard he taught for three years at the Morristown school, Morristown, New Jersey. In 1897 he left Morristown in order to go abroad to study. He spent two years in this way, obtaining the degree of Doctor of Philosophy at the University of Leipzig in 1899. On returning to America he received an appointment to substitute for one year as instructor at Harvard University and Radcliffe College. On leaving Harvard he filled another position to substitute for one year at the University of West Virginia. In 1901

Joseph William Carr.

he received the position of associate professor of English and modern languages at the University of Arkansas. On the resignation of Dr. Reed the following year, he was made full professor. For the next four years he edited the university catalogue. In 1905 Dr. Carr accepted a position as head of the department of German at the University of Maine, and served there for nearly four years.

Dr. Carr was a Mason, belonging to the body of Knights Templar; a member of the Modern Language Association and vice-president of the American Dialect Society. He contributed largely to the latter society. He was a member of the Episcopal Church and was active in forming an Episcopal society for the students. He was married to Miss Florence Hollister, December 20, 1900. Of this union three sons and one daughter were born. In February, 1909, he was injured internally by a fall. He recovered sufficiently to meet his classes a few times, but fell dead in the university building March 4th of that year.

Robert D. Carter was born in Massachusetts, August 10, 1876. He entered the army of volunteers January 16, 1899, in the eighth army corps of Major-General H. W. Lawton. He entered the regular army in January, 1900, and was made second lieutenant of the 12th infantry. He served in this capacity until 1901, at which time he was accepted first lieutenant of the sixteenth infantry. He was detailed professor of military science and tactics in the University of Arkansas in September, 1909.

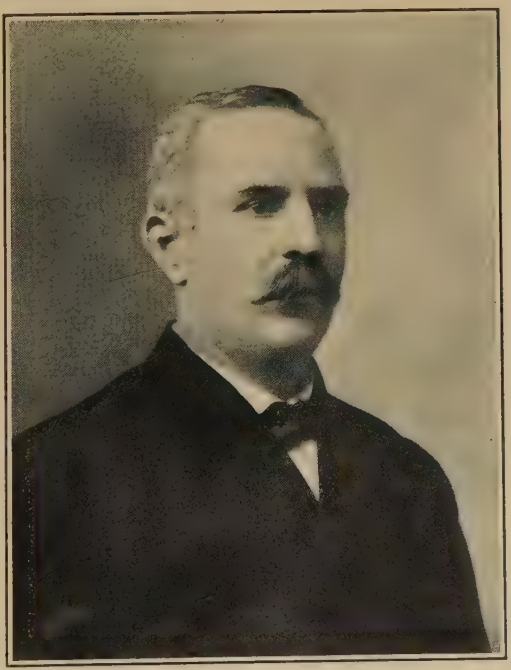
Robert D. Carter.

Elias Chandler was born in McDonough County, Illinois, December 29, 1856; was educated in the common schools of the county, at Lincoln University, Lincoln Illinois, and at the United States Military Academy, West Point, N. Y., graduating from the last named institution on the 11th day of June, 1880; twenty-fifth in a class of fifty-two. He was soon appointed a second lieutenant in the 16th U. S. infantry and served with that regiment in Kansas, Texas and Utah, and on detached service, till April, 1898. Until 1888 he served in Texas at various places, a part of the time as active Indian agent in charge of the Tonkawa and Lipan tribes. He spent two years (1892-94) on recruiting duty at Davids Island, New York Harbor, from which place he was ordered to report for duty as professor of military science and tactics at the Arkansas Industrial University. He took up this work February 29, 1894, and remained on duty four years.

Elias Chandler.

On the outbreak of war with Spain, Lieutenant Chandler was detached from duty with his regiment and ordered to report for duty to the governor of Arkansas in connection with the organization of the volunteers from that State. He was appointed colonel of the first Arkansas volunteer infantry and assisted in the organization of the regiment in April and May, 1898. He accompanied the regiment in command to Chickamauga Park, Georgia, where he was assigned to the command of the first brigade, second division of the third corps, May 27, 1898. He remained in command of that organization till October 9, 1898 (except for an interval of ten days, during which General F. D. Grant was in command), when the

regiment was directed to return to Little Rock to be mustered out. He then rejoined the 1st U. S. Infantry, at Huntsville, Alabama, early in December, 1898, and commanded a battalion of the regiment in its journey to Cuba, arriving in Havana, Cuba, December 30, 1898, in time to witness the transfer of authority in the Islands from the Spaniards to the Americans on January 1, 1899. After serving at various places in Cuba he returned to the United States and assumed command of company and post of Fort Logan H. Roots, Arkansas. From 1901 to 1903 he saw service in the Philippines. He returned to the United States in May, 1903, and served in various places until January, 1906, when he was again ordered to the Philippines. In the meantime he had been promoted major. He remained there until July 5, 1906, when he was placed on the retired list of the army, under date of June 30, 1906, at his own request, after having served for a period of thirty years. He returned to the United States via Manila, China, Japan, Korea, Siberia, Russia, Germany, Holland, England and France. He died at Chattanooga, Tennessee, 1909, and was buried at Fayetteville, Arkansas.



George Albert Cole.

George Albert Cole was born in Smith County, Virginia, September 6, 1860. He remained on the farm until he was fifteen years old, attending the country school near his home. At the age of fifteen he went to the county seat of Smith County and attended the Marion High School, from which he was graduated in 1879. He

received the medal offered by the trustees for proficiency in mathematics and science. After his graduation he taught school for five months, and then entered the junior class at Emory and Henry College. He graduated with the B. S. and B. A. degrees in 1882. After his graduation he acted as principal of Liberty Academy for three years.

In 1886 he left Virginia and came to Phillips County, Arkansas. He taught school at Poplar Grove for three years, when he was elected principal of the Springdale school in March, 1889. He served in this capacity until 1892, at which time he was elected principal of the Fayetteville public schools. After serving as principal for four months he resigned to accept a position in the preparatory department of the University of Arkansas. He taught in this department for eleven years, acting as principal for one year. In 1903 he was elected professor of agriculture, which position he resigned after five years. In 1909 he returned to the experiment station on solicitation of the director and took charge of the farmers' institute work in the State. In June, 1909, the board of trustees made a department of farmers' institute in the Agricultural College and elected him superintendent. In August, 1909, he was elected president of the Farmers' Union and the same year was elected president of the State Fair.

Cuthbert Powell Conrad was born of a distinguished family at Winchester, Virginia, in 1849. His father, Robert Y. Conrad, was a man of state-wide reputation, both as a lawyer and statesman. Cuthbert Powell, the youngest child was hardly more than thirteen years old when the Civil War broke out. Though only a boy, he was the support of his mother and sisters during the four years of privation and of nursing in the hospital which was improvised by his mother for the wounded of both North and South. Schools could have but an irregular and precarious existence in a place that was the scene of almost a hundred engagements, as was the town of Winchester; hence Professor Conrad's education began late. But at the end of a course at the University of Virginia during which he had taught to

obtain money, he received in 1874 diplomas in Greek, Latin, modern languages, and moral philosophy. After his graduation he was made principal of the Murfreesboro high school. He had taught here only a short time when he was called to the chair of natural science in Wesleyan Female College. After teaching here two years he was given a leave of absence to complete his university course, but the destruction of the property of Wesleyan College by fire left him free to prolong his work in the University of Virginia. In June, 1878, he received the A. M. degree from that institution.

Cuthbert Powell Conrad.

After his graduation he was made adjunct professor of chemistry and natural science in the University of Arkansas at a time when the institution needed strengthening in that department and a general toning up in the standards of scholarship. He threw all his energies into the task of raising the standard of the university. The first year of his services to the university he appealed to the newspapers, asking their coöperation in securing a collection of minerals. This collection was to be classified in mineralogical order and so arranged as to show the mineral characteristics of each county. At first there were few responses to this appeal; but by 1883 the interest of the people had been aroused and more than a hundred specimens had been sent in. In that year the work of the scientific department was divided and the chair of chemistry was given to Professor Conrad. He now acquainted himself with the mineral wealth of the State, and at the exposition at Louisville in 1883, and again in that at New Orleans 1884-85, he

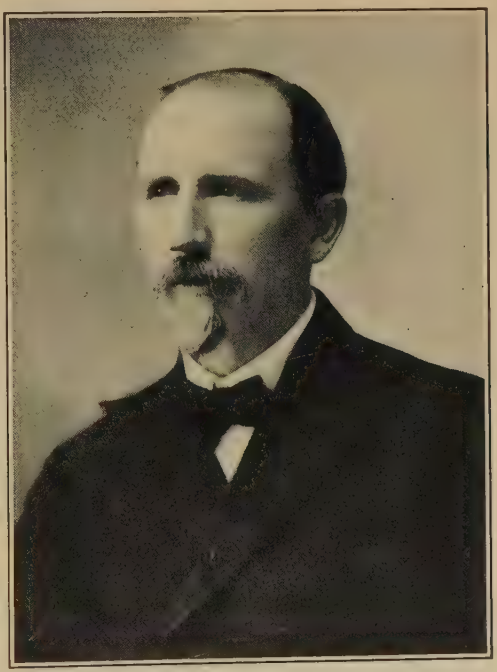
superintended the Arkansas exhibit, which brought the State into prominence. He also took interest in the educational work of the State. He rendered a valuable service to the State Teachers' Association, of which he was chosen president in 1881. In the general shake up of 1885 he, like all the other members of the faculty except the president, lost his position in the University of Arkansas. He then engaged in business for a while, but later accepted a chair in the School of Mines of the University of Missouri, where he remained until his death in 1892. He was elected a regular member of the American Chemical Society in 1882 and became a correspondent of the "Engineering and Mining Journal." In 1885 he was married to Miss Sara E. Harris, with whom he had been associated as a teacher in the University of Arkansas. Three children were born to them, Elizabeth, Agnes and Cuthbert Powell.

Edwin S. Curtis was born in New York. He enlisted as a private in company D, 48th infantry from New York, in 1861. He was discharged from the army September, 1863. He was appointed a cadet in the military academy from Virginia, September 16, 1863, and was appointed second lieutenant of the second artillery in June, 1867. He served in this capacity until 1873, when he was made first lieutenant. In 1872 he graduated from the artillery school and the same year was detailed professor of military science and tactics in the University of Arkansas, which position he held until 1875. He was made captain of the second artillery in August, 1896. He held this appointment until 1901 when he was made major of the artillery corps. He died November 4, 1901, at Brooklyn, New York.

Hadgie Booker Davies (now Mrs. L. R. Ash) was born in Cotton Plant, Woodruff County, Arkansas, February 27, 1874, and removed with her parents to Fayetteville, Arkansas, in the fall of the same year. She was educated in the public schools of Fayetteville and in the University of Arkansas, from which she was graduated with the honors of her class in 1893. During her senior year in the university she was chosen adjunct professor of English and modern language to

supply Miss Carnall's place during her illness, and after her death she was appointed by the board of trustees to supply her place until the arrival of her successor. After completing her course in the university she was elected to the chair of English and modern languages in Mary Baldwin Seminary, Staunton, Virginia. The position she held for four years, and resigned to accept a position in the University of Arkansas, that of associate professor of English and modern languages. This position she continued to hold for seven years, when she resigned to become Mrs. L. R. Ash, and removed to Kansas City, Missouri.

George Wesley Droke, son of George and Diana Droke, was born in Morgan County, Indiana, September 26, 1854. His parents came to Bentonville, Benton County, Arkansas, in 1856, and a few months after their arrival purchased a farm three miles south of Bentonville, upon which he grew to manhood. At that early date there were no public schools in that part of the State, and the private schools as a general rule were very inferior. About 1867 the first public school at the Droke schoolhouse was opened and here he attended his first school. In the summer of 1871, at the age of sixteen, he made his last crop on the farm, and in the fall he taught school. The first of February, 1873, he entered the high school at Bentonville, Arkansas, and continued there for five successive terms



George Wesley Droke.

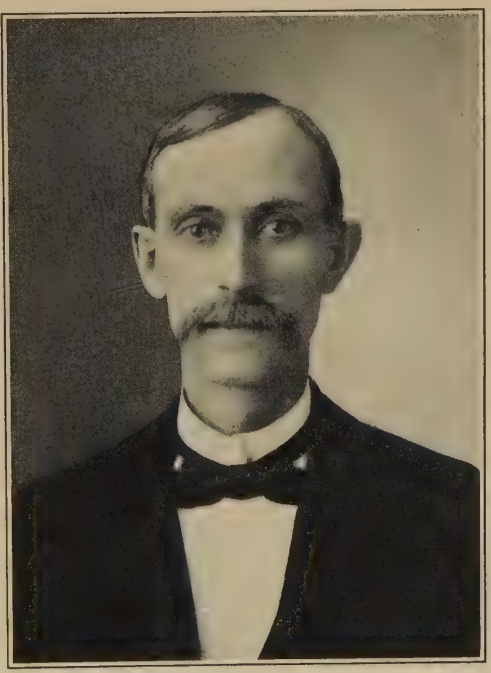
of five months each. The war had swept away all his father's property except 160 acres of poor land. In 1859 a protracted case of typhoid fever had left him broken in health and he felt that his son ought to remain at home and work on the farm, but young Droke kept importuning him for permission to go to school, and at length his father yielded, saying, "Well, sir, if nothing else will do, you may go to school, but I can not assist you financially." Both parts of this statement he faithfully kept.

Nothing daunted, young Droke undertook the task of educating himself. One of his teachers, Mr. John T. McGill, now at Vanderbilt University, lent him text books and money and helped him in many other ways. From others he borrowed small sums of money, paying as high as fifteen per cent. interest per annum. In 1876 he was an assistant in the Bentonville public school. The first day of the next year he began a private school in Hindsville, Madison County, Arkansas. Not succeeding with this enterprise he matriculated in the University of Arkansas as a member of the junior class, the first Monday of September, 1877. The next year he taught as associate principal in the Shiloh Institute at Springdale. In January, 1879, he re-entered the University of Arkansas, from which he graduated June 10, 1880, receiving the B. A. degree. Four years later (1884) he received the M. A. In October following his graduation he was elected an assistant in the preparatory department of the University of Arkansas. In July, 1885, the entire corps of teachers, except the president and music teacher, was dismissed, and he went to a warmer climate, teaching one year in Coronal Institute in San Marcos, Texas, as the head of the English department. The next year he was principal of the high school at Bentonville, Arkansas.

In June, 1887, he was elected first assistant in the preparatory department of the University of Arkansas, and in December, 1891, was promoted to the college department as adjunct professor of mathematics, later as associate professor, and in June, 1897, as professor of mathematics, logic and astronomy, which position he now holds. He has attended lectures in the University of Michigan, the Johns Hopkins University and the University of Chicago. He is a member of the Central Association of Science and Mathematics Teachers and of

the American Mathematical Society. He is a member of the Methodist Church and a steward in the church at Fayetteville. On the 24th of September, 1879, he was married to Miss Cassandra Josephine Campbell. Of this union three children were born, George Prentice, Lelia Ruth, and Marvin Josephine. He was again married to Miss Malinda Inez James on the 18th day of August, 1887. Of this union three children were born, Albert Hill, Mary Inez and Louise Blanche. On the 15th of February, 1904, they adopted into the family a seventh child, an orphan, four days old, and named him James Walling Droke.

Bolling James Dunn was born in Logan County, Kentucky, June 13, 1848, son of Gray B. and Lucy (Graham) Dunn, who came from Virginia in the early part of the nineteenth century. He received his early education in the schools of the county near his home, but in 1866 he went to Volney Academy, afterwards called Browder Institute. After two years he went to Bethel College, of which the well-known Dr. Noah K. Davis was then president. He took his B. A. degree in 1871 and his A. M. in 1874. He read law in the office of Judge M. B. Bowden, who afterwards became a member of the supreme court of Kentucky. During 1872-3 he was licensed to practice in the courts of his native state. But he decided to make teaching his profession and became principal of Allensville high school, Kentucky. He came to Arkadelphia, Arkansas, in 1877, and for



Bolling James Dunn.

three years had charge of Arkadelphia Baptist High School. He returned to Kentucky and taught a select school at Red Oak, near Russellville, having in the meantime lost both parents. He returned to the Arkadelphia Baptist High School for three years. In 1886 he became connected with Ouachita College and remained there as a teacher until the beginning of 1894, when he was elected principal of preparatory department of the University of Arkansas. He held this position for four years. In 1898 he was made associate professor of mathematics, which position he now holds. While in college he joined the Phi Gamma Delta fraternity. He was married in December, 1873, to Miss Carrie Barton. Of this union five sons and one daughter were born.

Robert W. Dowdy was born in Mississippi, January 31, 1854. He became a cadet in the Military Academy July 1, 1875. In June, 1879, he was made second lieutenant of the 17th infantry, and in December, 1885, he was promoted to the rank of first lieutenant. He was detailed for service in the University of Arkansas in 1891 and served as commandant in this institution until 1894. He was made captain of the twenty-second infantry in 1899, but in 1902 was transferred to the twenty-sixth infantry. He was retired with the rank of major in May, 1903, under the disability act of 1901.

H. B. Edmiston, B. A., University of Virginia, was made first assistant in the preparatory department in 1879. He held the position until the fall of 1880, when at the request of the faculty the executive committee appointed him professor of modern languages. He continued to hold the position until 1885, when he was dropped along with the rest of the faculty of that year.

Howard Edwards was born in Fauquier County, Virginia, in 1854. He received his early training in the public schools of his native state. He then entered Randolph-Macon College, Virginia, from which he was graduated in 1876 with the degree of Master of Arts. His career as a teacher began before his graduation, as he acted as assistant in

Latin in the college from which he graduated. During the years 1876-77 he taught in a private school in Virginia. The following year was spent in the University of Leipzig. On his return to America he was made associate principal of Bethel Military Academy of Fauquier County, Virginia. After having filled this position for two years he went to the Bingham School at Asheville, North Carolina, where he taught for two years, 1880-82. In 1882 he became principal of the Bethel Academy, and in 1884 he took charge of an academy at Tuscumbia, Alabama. In 1885 he was elected to the chair of English and modern languages in the University of Arkansas, which position he filled for five years. In 1890 he accepted the chair of English and modern languages in the Michigan Agricultural College. In 1891-2 he spent six months at the Sorbonne in Paris. He resigned from the Michigan Agricultural College to accept the presidency of the Rhode Island State College, which position he now holds. In 1891 he received the LL.D. from the University of Arkansas. He is the author of many published addresses.

Isaac Fisher, principal of the Branch Normal College at Pine Bluff, is a graduate of Booker T. Washington's famous Tuskegee Institute in Alabama. Of him Dr. Washington has said several times in public, "The only thing I ever had against Isaac Fisher was that even when he was a student at Tuskegee, he could always beat me making a speech." Professor Fisher was elected to his present position in June, 1902.

Isaac Fisher.

Before coming to Arkansas, he had been an instructor

in the Schofield School of Aiken, South Carolina; negro farmers' conference organizer for the same school; northern financial agent for the Tuskegee Institute, being the direct personal representative of Booker Washington in New England; negro farmers' conference organizer for the same school, and principal of Swayne public school in Montgomery, Alabama.

Although Professor Fisher holds no academic degrees, he has, within the past year attracted national attention by reason of his remarkable success in winning money prizes in essay competitions on subjects of interest to the whole country. These contests were open to writers everywhere. The essays which he has written and which have given him rank as a writer on economic questions are as follows:

1908—"The Relation Between Manual Training in the Public Schools and Industrial Education and Efficiency," Craftsman Contest, New York. Third prize.

1909—"A Plan to Give the South a System of Highways Suitable to Its Needs," Manufacturers' Record Contest, Baltimore. Second prize.

"German and American Methods of Regulating Trusts," Hart, Schaffner & Marx Economic Contest, Chicago. Second prize.

1910—"Computing Scales and the Housewife," Computing Scales Contest, Dayton, Ohio. First prize.

In addition to these, Professor Fisher is preparing "The Industrial Aptitude and Efficiency of the Leading Nationalities of the World," an exhaustive inquiry into the occupations of the world's industrial population.

In 1910 the Agricultural and Mechanical College for Negroes at Normal, Alabama, conferred the honorary degree of Master of Arts upon Professor Fisher for his success as an essayist and educator. This negro teacher is a member of the American Academy of Political and Social Science, and he bears the unique distinction of being the only negro who investigates and writes treatises on subjects of national concern, not specially related to the "Negro Question."

In all of his efforts in Arkansas Professor Fisher has had the most cordial and helpful encouragement from the best white citizens of the State. To quote his own words: "My relations with the white

people of Arkansas have been more beautiful than I ever dreamed they could possibly become between me and any white person. But I know it has been because I have shown that I do not hate the white people, and they have, in their turn, dealt with me with friendliness not less than my own."

Edmund L. Fletcher was born in New York, June 1, 1851. He entered the Military Academy in July, 1868, but was dropped from the roll in November, 1869. He entered the infantry in company E as a private in 1872, but was discharged from the service in 1873. He was made second lieutenant in the infantry and was accepted as first lieutenant in June, 1879. He was detailed for service as commandant in the University of Arkansas in 1887, which position he held one year. He retired from active service with the rank of captain in July, 1895, under the disability act of 1890.

John Clinton Futrall, the son of Thomas A. and Emma (Headen) Futrall, was born near Jackson, Tenn., on March 9, 1873. At the age of eleven years he removed with his parents to Marianna, Arkansas, was prepared for college in the public schools of that place and entered the University of Arkansas in 1888, where he remained as a student until 1890. In September, 1890, he entered the University of Virginia, and was a student there four years, receiving the degrees of Bachelor and Master of Arts. On January 8, 1894, he was elected professor of Latin in

John Clinton Futrall.

the University of Arkansas. At the end of the college year the departments of Greek and Latin were combined, and Professor Futrall was made head of the department, which position he has since held. In 1899-1900 he studied at the Universities of Bonn and Halle, and traveled in Greece and Italy.

In 1898 he was married to Miss Annie Gaines Duke. Three children were born of this union, two of whom are now living.

William Nathan Gladson was born at Corning, Iowa, February 22, 1866, son of J. M. and Almira (Newcomb) Gladson. He received his primary education in the country district school and the high school of Corning. He then entered the Iowa State College of Agriculture and Mechanic Arts at Ames, from which he received the degree of B. M. E. in 1888. From 1888 to 1891 he was in the employ of the Thomson-Houston Electric Company as an expert electrician. During the year of 1892 he was in the employ of the Westinghouse Electric and Manufacturing Company on the World's Fair grounds at Chicago as designing engineer and draughtsman. The scholastic year of 1893 he spent at the Ohio State University as assistant professor of electrical engineering. In February, 1894, he came to the University of Arkansas as adjunct professor in charge of the department. In 1897 he was made professor of electrical engineering, which position he now holds. During his service with the University of Arkansas, he

William Nathan Gladson.

spent one summer vacation in the University of Chicago in special research work; one summer with the Allis-Chalmers Electric Company as superintendent of construction of a large railway plant. In 1896 he did some original research work on the X-ray and secured and operated the first X-ray machine in the State of Arkansas. He also did original research work on the wireless telegraph and operated the first wireless telegraph instrument in the State. In 1897 he wrote a thesis on the X-ray from notes and research work of the year before and was granted the degree of Ph. D. by the McCleanorsville College of McCleanorsville, Tennessee. He is at present in charge of the water power investigation of the State, jointly for the State and United States. He is a charter member of the American Electro-Chemical Society, a member of the American Institute of Electrical Engineers and of the Society for the Promotion of Engineering Education, also a member of the National Geographic Society. He was married to Miss Elizabeth Wade in 1891. Two daughters were born to them.

James Beale Gordon. The failure of the legislature in 1877 to appropriate adequately for the university forced the board in June to cut down expenses. For that reason Professor Demmlar was not retained, an adjunct professorship of civil engineering and mathematics was created and Professor Gordon, C. E. and B. Sc., a young graduate of the University of Virginia, was appointed by the executive committee to fill it. He held the position until June, 1880, when he was made professor of applied mathematics and civil engineering. He died of typhoid fever at Fayetteville, September 11, 1880. He was a young man of promise. He was popular with both teachers and students. The faculty in commenting upon his death, said that the university had lost "one of the brightest ornaments that has ever adorned its rostra, and one who was respected and honored and loved by all who knew him as a brilliant scholar, a gifted teacher, a gentleman whose many excellent qualities of heart and head endeared him to all." His body was taken back to Virginia.

Mary Gorton, daughter of Truman B. and Elizabeth (Searle) Gorton, was born at Rock Island, Illinois, September 27, 1844. After graduating from the Rock Island high school in 1863, she entered the state normal school at Normal, near Bloomington, and attended there four years, graduating with highest honors and being chosen valedictorian of her class. Meantime she had taught one year as assistant principal at Rock Island. Immediately after graduation she accepted a position in the Cook County normal and taught there four years. Receiving an offer of a full professorship in the University of Arkansas at a larger salary, she accepted and was present at the opening of the first session in January, 1872. She remained with the university until 1877. Her official designation was "preceptress in normal department." The last year of her stay, when Professor Gates was president, she was made principal. Her thorough training and long experience in that kind of work made her eminently qualified for the task assigned her at the university. Her professional ability and womanly qualities won the respect and admiration of both faculty and students. When she announced her intention of leaving, the board accepted her resignation with regret and in a series of resolutions declared that she, "By her happy tact in subduing and controlling the wayward and the idle, impressing upon them her own high type of thought and mode of reasoning, and by her unvarying devotion to the interests of the University, has made us to feel her loss to be almost irreparable." A part of the time while at the univer-

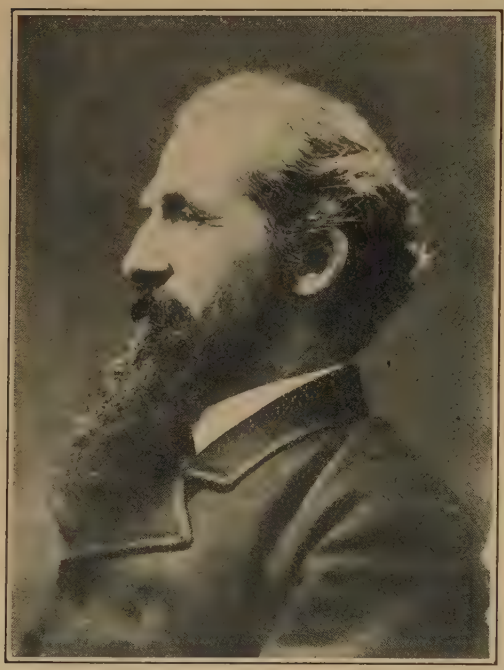
Mary Gorton.

sity she served as secretary of the faculty. She took an active interest in student life and was largely instrumental in founding the first literary society.

At the time of her death the faculty, with most of whom she had been associated, resolved that "Hundreds of the youth of this and other states recognize in her the chief architect of whatever character they possess." Mr. Wentworth, sometime president of the Cook County Normal, is said to have declared that she was the best educated woman in Cook County. Certainly she was a highly cultured woman, possessing a keen appreciation of the best in literature, music, and art. When she left Arkansas she went to St. Louis with the intention of practicing law, which she had been reading privately, in coöperation with an attorney to whom she had been engaged some time. Meantime she accepted a position in the public schools of St. Louis and is said to have won high praise from their superintendent, Dr. Wm. T. Harris. In the fall of 1878 she took her examination and was admitted to the bar, her examiner, a leading judge, declaring that never before, in all his experience, had he passed a candidate of such high attainments. But overwork—teaching during the regular hours of school, coaching special students, and helping her betrothed at night—was undermining her health. She was to have been married the following Christmas, but died November 15, 1878.

Oliver Crosby Gray, son of Dr. Peter and Rachel (Kennedy) Gray, was born at Jefferson, Maine, December 30, 1832. He attended Colby College at Waterville, Maine, and was graduated from that institution in 1855. He was a classmate of the late Nelson Dingley, who rose to the leadership of the Republican majority in the house of representatives. After leaving Colby College, Colonel Gray attended Dartmouth College for a short time. He then went west and located at Minneapolis, where in 1856-57 he was superintendent of the public schools. In 1858 he moved to Arkansas and in that year and the year following was principal of Monticello academy. In 1860-61 he was principal of Princeton academy, which was at that time one of the leading institutions of the State. At the beginning of the Civil War he enlisted as a private in the third Arkansas cavalry

and served under Colonel Solon Bourland and later under Colonel Hobson. He afterwards rose to the captaincy of troop A in the same regiment.



Oliver Crosby Gray.

After the war Colonel Gray returned to Arkansas and resumed teaching. In 1866-67 he was principal of Princeton female academy. He then accepted the position as professor of mathematics in St. John's College at Little Rock. He was later elected president of the same institution and served in that capacity until 1875, when he went to the University of Arkansas, and served as professor of mathematics from 1875 to 1886. In 1887-88 he was principal of the public schools in Fayetteville, Arkansas. He then returned to the chair of mathematics in the university, which position he held until 1895, when he was elected principal of the school for the blind at Little Rock. From 1899 to 1901 he was principal of the Speers-Langford Institute at Searcy. In 1901 he was reëlected superintendent of the blind school, which position he held until his death. Colonel Gray was a member of Magnolia Lodge, A. F. and A. M.; Union Chapter, Royal Arch Masons; Hugh de Payens Commandery, Knights Templar, and was one of the oldest members of the Scottish Rite bodies of the Valley of Little Rock. He was a life-long member of the Presbyterian Church. Colonel Gray was twice married. His first wife was Miss Virginia L. Davis whom he married May 27, 1857. He was married the second time to Mrs. Mary M. Beattie whom he married June 17, 1889. By his first marriage Colonel Gray had two children both of whom survive him.

Gustavus Garland Greever.

Gustavus Garland Greever was born in Lead Hill, Boone County, Arkansas, April 4, 1883, son of William A. and Lydia C. (Redus) Greever. His parents moved, in the summer of 1895, to Carthage, Missouri. He then entered the high school of that city, from which he was graduated in 1899. In the fall of 1900 he entered Central College, Fayette, Missouri, from which he received the B. A. degree in 1904. In the fall of the same year he became a fellow in English in Trinity College, Durham, North Carolina, and from this institution he received the degree of M. A. in 1905. Since then he has taken special courses in English there. For three years—from the fall of 1905 to the spring of 1908—he was head of the department of English in the city high school of Durham, North Carolina. In the fall of 1908 he became associate professor of English in the University of Arkansas, which position he now holds. He has recently edited Poe's "Raven," Longfellow's "Courtship of Miles Standish," and Whittier's "Snow Bound." He is a reviewer for "The Dial," and will shortly publish an article on Southern Leadership Since the Civil War in "The North American Review." He was married to Miss May St. Clair Stocking in the summer of 1908.

Sara Eugenia Harris was born in Missouri, but was educated in Fayetteville, Arkansas, receiving the degree of B. A. in 1876, at the age of nineteen. In addition to the work required for the degree she had taken all the advanced courses at that time offered in the university. The following year she was invited by the board of trustees and the faculty of the university to take a place as adjunct professor in English and history. When Professor James Mitchell, the head of the department, resigned to assume the editorship of the "Little Rock Gazette," his duties fell upon Miss Harris. In 1883 the degree of A. M. was conferred upon her. She was given the rank of professor and held the chair until 1885. In July of that year she was married to Professor C. P. Conrad. Since his death she has devoted herself to the education of her three children, incidentally continuing her own studies at the foremost universities in America and in Germany, and for two years at the University of Geneva, Switzerland.

Francis LeRoy Harvey.

Francis Le Roy Harvey, second son of Daniel and Amanda Harvey, was born near Ithaca, New York, April 22, 1850. He received his early education in the schools of Ithaca. When he was about fifteen years old his parents moved to Iowa and located at what is now Humboldt. He entered the Iowa Agricultural College at Ames in 1868, entirely paying his own way by teaching and whatever he found to do. Between 1867 and 1874 he had taught fourteen terms in the schools of

the State. He graduated from the agricutural college in 1872 with the degree of B. S. and fourteen years later received the M. S. degree. During his college course he was student assistant in chemistry and took many special honors in natural science. In 1873 he became principal of a graded school in Iowa; and the year following was made professor of natural science in Humboldt College. He continued in this capacity until 1875 when he was elected to the chair of theoretical and applied chemistry and natural history in the University of Arkansas. In 1881 the chair was divided and he was given that of biology and geology, which position he held until 1885.

During his stay in Arkansas he found many plants and fossils new to science and published, among other things, "Forest Trees of Arkansas," which is still used as a book of information on Arkansas forestry. He worked with tireless energy for the interests of the institution, collecting the flora and minerals of the State. In addition to his work in building up his department he made special studies in insect depredations, plant diseases, forestry problems, botanical subjects and the more practical branches of agriculture and horticulture. While in Fayetteville he collected and distributed at his own expense one hundred thousand native plants to the schools and colleges of the State. Two of the plants were given his name by Dr. Asa Gray. In 1886 he assumed charge of the natural history establishment of Dr. A. E. Foote in Philadelphia, but after a year's service here he accepted the call to the chair of natural history in the University of Maine. He was largely instrumental in securing the erection of Coburn Hall, which was completed two years later. In 1888 he was made botanist and entomologist of the experiment station. This added greatly to his routine duties and gave less time for original investigation, of which he was very fond. In 1890 he received the Ph. D. from the University of Arkansas.

Professor Harvey was a corresponding member of the Academy of Natural Science of Philadelphia, an honorary member of the American Association of Forestry, a member of Torrey Botanical Club of New York, of the Washington Entomological Society, the Portland Natural History Society and an active member of the American Association of Economics, Botanists and Entomologists. He discovered about fifty forms new to science, has described a number of new insects

and algæ, and half a dozen plant forms have been named for him by Lesquereux, Peck, Bortte and Gray. He wrote many scientific articles for journals and periodicals in Arkansas. From 1886 to the time of his death in 1900 he published nearly seventy articles pertaining to the natural history of Maine. He was of a religious turn of mind and a life-long Christian. He was married to Miss Addie Lillian Bortte of Independence, Iowa, June 27, 1878. Six children, five of whom survive, were born of this union: Le Roy Harris, Bortte Trott, Henry Stuart, William Loke, Florence Evelyn and Ruth Josephine. Professor Harvey died suddenly at Orono, Maine, March 6, 1900.

Joseph Lee Hewitt, son of Joseph N. and Mary (Davis) Hewitt, was born at Denver, Indiana, May 7, 1881. His parents moved to Missouri in 1885. He received his early education in the common schools of Missouri. He then entered the manual training high school of Kansas City, from which he was graduated. He then entered Kansas University school of engineering, where he spent one year. For two years he was employed as chemist by the Smelting and Refining Company of Argentine, Kansas. He then entered the University of Missouri, from which he was graduated with the B. S. degree in 1905. Since that time he has been continuously in the service of Arkansas agricultural education. He was first employed as assistant in horticulture, then as adjunct professor of horticulture. Later

Joseph Lee Hewitt.

he accepted the position as plant pathologist, and in 1909 was made professor of plant pathology.

Jobelle Holcombe was born at Springdale, Arkansas, in 1877. She received her primary and secondary education in the Springdale and Fayetteville public schools. She entered the preparatory department of the University of Arkansas in 1892 and six years later received the B. A. degree. After her graduation she was a teacher in Willie Halsell College at Vinita, Oklahoma, for one year. She then returned to Fayetteville, Arkansas, where she was employed as a teacher in the public schools from 1899-1901. For the next two years she taught in the preparatory department of the University of Arkansas.

Jobelle Holcombe.

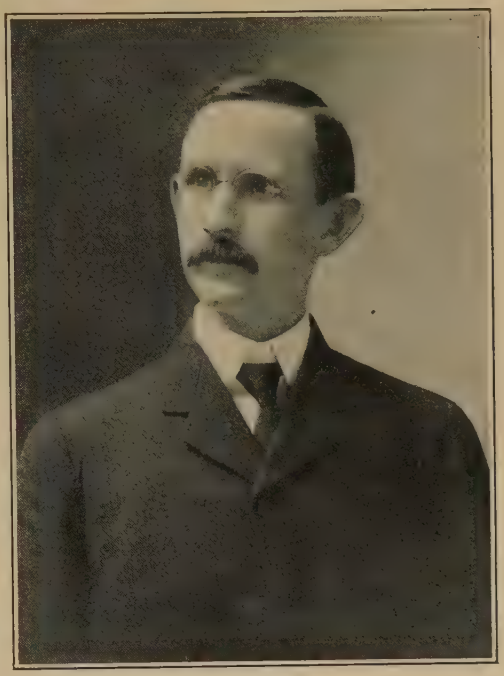
In 1903 she became a student at Chautauqua, New York. From 1903 to 1905 she taught English and modern languages in the Arkansas Cumberland College at Clarksville. She was a graduate student in Cornell University, 1905-06, from which institution she received the M. A. degree in 1906. During the year 1906-07 she was instructor in English in the preparatory department in the University of Arkansas. In 1907 she was made dean of women and instructor of English in the college department of the university, which position she now holds.

She was one of the charter members of the Chi Omega sorority and did much toward making it a national sorority. She is a member of the south central territorial committee of the Young Women's Christian Association.

Victor Albert Hooper was born at Tyrone, Ontario, Canada, November 20, 1881. His parents are of Canadian descent. He received his early education in the public schools of his native district after which he entered upon a high school course. After having attended the high school for two years he entered the Ontario Agricultural College at Guelph, Canada. He remained here for two years, 1900-02. After leaving college he was instructor in dairy husbandry, and in charge of experimental butter-making in the Ontario Agricultural College, 1902-03. He was employed by the City Dairy Company in Toronto, Canada, during the year 1903-04. He was elected professor of dairy husbandry in the University of Arkansas in 1904, which position he now holds. He is unmarried.

Victor Albert Hooper.

Charles Edwin Houghton was born in Philadelphia, Pennsylvania, on March 14, 1859. His high school education was received in Ann Arbor High School, from which he was graduated in 1880. Between 1880 and 1890 he was engaged in railway construction and location, city surveying and irrigation work. He entered the University of Michigan in 1890, but later



Charles Edwin Houghton.

became a student in Leland Stanford University, from which he was graduated in 1893. He then entered Cornell University, from which he received the M. M. E. in 1894. From 1894 to 1898 he was instructor in mechanical engineering in Cornell University. In 1898 he was made professor of mechanical engineering in the University of Arkansas. He served in this capacity until 1902 when he accepted the position as associate professor of mechanical engineering in New York University, which position he now holds. He is a member of the American Society of Mechanical Engineers, the Society for the Promotion of Engineering Education and the Sigma Phi. fraternity. He is the author of a text-book on the mechanics of materials.

He was married to Miss Anna E. Bascher of Stockton, California, in 1895. Two children were born of this union, Edwin Jr. and Evelyn.

Julius Franklin Howell, son of Edward and Sarah (Barnes) Howell, was born on a farm in Nansemond County, Virginia, January 17, 1846. He received his early education in private schools. He then attended Reynoldson Collegiate Institute, North Carolina, from 1855 to 1861. In August, 1862, he joined the Confederate army, and became a member of the 24th Virginia cavalry. He served continuously in the army until April 6, 1865, when he was captured at the battle of Sailor's Creek, Virginia, and kept for two months in the military prison at

Point Lookout, Maryland. After studying another year at the above-named institution, he taught in North Carolina from 1867 to 1873. He then removed to Arkansas and taught in private and public schools until 1885. From 1885 to 1891 he taught in the normal department and also in the preparatory department of the University of Arkansas. The latter year he became professor of history and pedagogy and served in this capacity until 1898. He was married September 17, 1870, to Miss Ida Celsus Hinton. Nine children were born to them.

Julius Franklin Howell.

William Smythe Johnson was born on a farm near Arkadelphia, Clark County, Arkansas, October 8, 1869. When he was a year old the family moved to the southern part of Pike County, where he remained until he went away to school.

His father, a native of Jackson, Tennessee, saw four years of service in the Southern cause. He was educated in the common public and private schools of Pike County until he was sent to Howard's Academy to prepare for college. He left there and taught a school at the age of fifteen in the northern part of Pike County. He then took charge of his father's store, but later gave it up and weighed cotton in his father's gin. During the following fall and winter he taught a term of school at Wallaceburg, Arkansas, at the close of which he entered Ouachita College. By teaching every summer, he remained there until he received the B. A. degree in 1890. After his graduation he was principal of the public schools at Emmet and

William Smythe Johnson

Lewisville, Arkansas. He then served as instructor in mathematics in Ouachita College for one year. In 1893 he took charge of the newly established Baptist College at Mountain Home, Arkansas, where he remained three years. This year Ouachita College conferred on him the honorary M. A. degree.

He entered Yale University in the fall of 1896, and, with the exception of one semester spent at the University of Leipzig, Germany, remained there three years, receiving the Ph. D. degree in 1899. In reporting this matter at the time the "Arkansas Gazette" stated that he was the first native of the State to receive this degree. He was made instructor in psychology at Yale the following year. In the summer of 1900 he had charge of the department of philosophy at the University of Cincinnati, and in the fall went to the Normal College of Louisiana as head of the training department, where he remained for two years. For the past seven years he has had charge of the department of philosophy and pedagogy at the University of Arkansas.

He was instrumental in establishing the Arkansas Teachers' Reading Circle in 1905, a department of the State Teachers' Association, which now has over two thousand members who do regular and systematic work along professional and cultural lines. He has served as president of the circle ever since its organization. Soon after coming to the university he got the consent of the president to establish a university employment bureau, which he manages for the benefit of students.

His thesis for the Ph. D. was published by Yale University under the title "Practice and Habit." He is a Democrat and a Baptist. April 26, 1903, he married Miss Ilma Leche of Donaldsonville, La. They have one daughter.

Junius Jordan was born in Barbour County, Alabama. After finishing the public schools of his native town he entered the Southern University in Alabama, from which he was graduated with the M. A. degree in 1867. After his graduation he taught Latin and Greek in the Columbus, Mississippi, male college 1870-75. He came to Arkadelphia, Arkansas, in 1876, as principal of the male high school, which position he held for one year. He then went to Pine Bluff and opened a private school where he taught for ten years. In 1894 he was elected state superintendent of public schools and served in this capacity until 1898, when he accepted the chair of philosophy and pedagogy in the University of Arkansas. He held this position for three years, when he was elected as superintendent of the city schools at Pine Bluff. In 1900 he was elected president of the Southern Educational Association at Memphis, Tennessee. As normal instructor he has delivered courses of lectures at the University of Mississippi and at Millsaps College at Jackson, Mississippi; and also at the normals held in Chattanooga, Collierville and Memphis, Tennessee. He has also filled lecture engagements during the past ten years in Arkansas, Texas and Louisiana. He has won distinction as a lecturer in various states of the South and he still is engaged in platform work when not occupied with school duties.

In 1886 the Central University of Kentucky conferred on him the M. A., *honoris causa,* and in 1898 he received the LL. D. from the University of Arkansas.

Charles Volney Kerr, son of George W. and Nancy (Collins) Kerr, was born near Troy, Miami County, Ohio, March 27, 1861. The family moved to Illinois in 1863. His early education was secured in the old-fashioned country district school. In early manhood he went to Pittsburg to enter the Western University of Pennsylvania where he graduated with honors in 1884 (Ph. B.). Fourteen years later, in recognition of special

Charles Volney Kerr.

work in engineering mechanics, he was honored with the degree of Ph. D. In 1885 he entered the sophomore class of Stevens Institute at Hoboken, N. J. During his senior year he helped to organize and was the first president of the Stevens Engineering Society which still schoolmates and an assistant in exists. He was also a tutor for the chemical laboratory. With a classmate, now assistant to the president of the Carnegie Steel Company, he made a graduation thesis test on the engines of a tow boat which drove a large fleet of coal barges from Pittsburg down to the mouth of the Red River in Louisiana. The winter of 1888-89 was spent in teaching mathematics and science in Pratt Institute, Brooklyn. In the spring of 1889 the position of assistant professor of mechanical engineering in the Western University was secured. In January, 1890, the work of laying out the course in mechanical engineering for the university and of equipping the shops was begun. In 1891 he accepted the position as head of the engineering department in the University of Arkansas, which position he held until 1896. During these five years the work in civil and mechanical engineering was continued and in some respects made still more efficient. The course in electrical engineering was established. In 1896 he accepted the position as head of the mechanical engineering department in the Armour Institute at Chicago. While there he acted as a consulting engineer in the establishment of a compressed air pumping plant for the village of Riverside near Chicago and in a long series of tests of roller bearings in comparison with sliding bearings.

In 1902 the chance came to enlarge the experience in practical engineering and he resigned to become one of the engineers for Westinghouse, Church, Kerr & Company of New York City. Leaving that interesting and helpful work in power plant engineering with the good wishes of his associates, Professor Kerr organized the Kerr Turbine Company in 1904. In five years they had manufactured and sold 250 turbines in various parts of the United States and several foreign countries.

Professor Kerr is a member of the American Society of Mechanical Engineers, the Western Society of Engineers, Society for the Promotion of Engineering Education, and in local matters, of the board of education. He was also a member at one time of the Arkansas State Teachers' Association and of the National Educational Association.

He has contributed articles to engineering journals and to society proceedings. Among the more important are the following: "The Arkansas Industrial University," Cassier's Magazine; "The Potential Efficiency of Prime Movers," Proceedings American Society Mechanical Engineers, Volume 25 (1904); "Theory of the Moment of Inertia," Ibid., Volume 20 (1899); "Education of Railway Mechanical Engineers," Proceedings Western Railway Club, 1902. He was married December 25, 1888, to Miss Libbie Applebee. Four children have been born to them.

Julius James Knoch.

Julius James Knoch, son of Herman and Amelia (Roebling) Knoch, was born at Saxonburg, Pennsylvania, a small town near the city of

Pittsburg, January 12, 1863. His father was born in Muhlheisen, Germany, and came to America in 1831. His mother, who was a niece of W. A. Roebling, the builder of the Brooklyn Bridge, was born at Saxonburg, Pennsylvania, in 1837. His early education was obtained at the public schools near his home. He then entered Grove City College, Grove City, Pennsylvania, in 1882, receiving the degree of B. S. in 1886, and the degree of M. S. in 1888. The same year he entered Cornell University and received the degree of C. E. in 1892.

He was instructor of German and mathematics in Grove City College from 1886 to 1888, and did professional work as assistant engineer to Professor C. L. Crandall at Ithaca, New York. This work included a steel highway bridge of three spans and approaches across the Susquehanna River at Oswego, New York, the total length of the structure being about nine hundred feet.

From June, 1893, to 1894, he was adjunct professor of civil engineering in the University of Arkansas; associate professor of civil engineering, 1894-1897. In 1897 he was made a full professor. He has been acting city engineer of Fayetteville since 1898. He was married to Miss Amelia Keeler of Ithaca, New York, in May, 1893. Of this union two sons have been born, Elmo and Lester.

Virgil Proctor Knott.

Virgil Proctor Knott, son of W. J. and Mary Belle (Jackson) Knott, was born at Bentonville, Arkansas, December 1, 1882. He was educated in the public schools of Bentonville and

in the Bentonville Academy. He entered the University of Arkansas in 1899, from which he was graduated in June, 1904, with the degree of B. C. E. After his graduation he was employed in the following positions: Assistant engineer on construction of Fort Smith and Western Railway with residence at Okemah, Oklahoma, 1902-03; assistant engineer with the Terminal Railway Association in St. Louis from May until September, 1906; assistant professor of civil engineering in the University of Arkansas 1904-07 and associate professor of civil engineering in same institution, which position he now holds. He is a member of the Society for Promotion of Engineering Education.

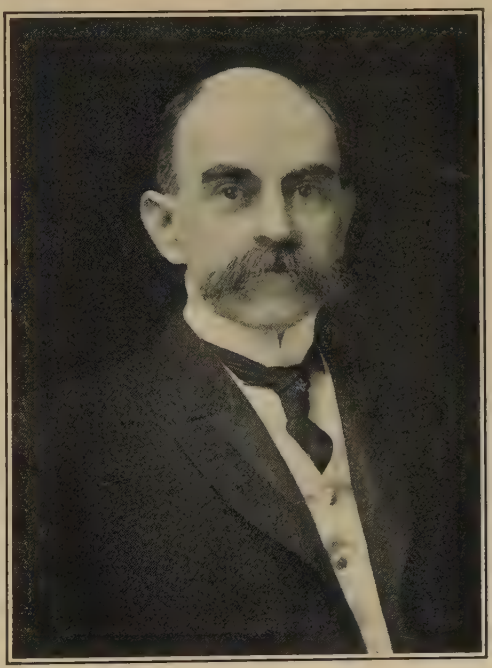
James Wyse Kuykendall was born at Gainesville, Arkansas, September 12, 1873. He received his elementary education in the public schools of Arkansas and Texas. He later took work in Thompson's Classical Institute, St. Louis College of Physicians and Surgeons, and later the University of Arkansas, but he received no degree except the L. I. in 1904. After his graduation he began teaching. He was first employed in the public schools of Texas, 1892-93. He then accepted a position in Paragould, Arkansas. He has since held the following positions: Teacher of mathematics, Thompson's Classical Institute, Paragould, 1893-94; vice-principal Paragould public school, 1894-96; deputy state superintendent of public instruction, 1897-1901; state superintendent of public instruction, 1898 (seven weeks); principal preparatory department, University of Arkansas, 1901-05; superin-

James Wyse Kuykendall.

tendent of schools, Fort Smith, Arkansas, since 1905. He has held several honorary positions, including the presidency of the State Teachers' Association.

He was married to Miss Mary Ida Hopkins in 1894. Four children were born to them.

Alvin V. Lane was born in New Orleans, Louisiana, February 14, 1860. He entered Vanderbilt University in his early manhood, and was graduated from that institution with the degree of C. E. in 1881 and Ph. D. in 1882. After his graduation he entered the teaching profession. He has occupied the following positions: Professor of engineering in the University of Arkansas, 1883-84; associate professor of applied mathematics in the University of Texas, 1885-86. In July, 1886, he entered the banking business in Dallas, in which he has since been engaged. He is the author of "Note on Roulette," published in the Journal of Mathematics, volume VIII, Number 2, also of Adjustments of the Compass, Transit and Level (Ginn & Co.). He is an active member of the Masonic fraternity, and is 32° K. C. C. H. of the Scottish Rite and Past Grand Commander of the Knights Templar of Texas. He is a trustee of the public library association, ex-president of the Texas Bankers' Association and vice-president the American Exchange National Bank of Dallas. He was married to Miss Lulu McHeney of Corsicana, Texas, in December, 1886. Two daughters and one son have been born of this union.



Alvin V. Lane.

Wilfrid Lenton, the second son of Henry Lenton, B. Sc. (London), F. A. A., and Lucy (Letch) Lenton, was born at Oundle in the County of Northampton, England, October 15, 1878. He attended Thrapston High School, taking first place in the examinations during his last year there, 1896. From 1896 to 1898 he was a "pupil-teacher" at the Rockingham Road Board School, an institution having a seating capacity of 600 scholars and always more than full. There he worked for the Teachers' Certificate, attending regular "P-T" classes and also continued his attendance, begun in his high school days, upon courses under the direction of the science and art department of South Kensington, London (now the British Educational Department). Here he took high rank and received the teacher's "D" (Drawing Certificate). In 1898 he took the Queen's Scholarship, entitling the holder to two years' free tuition at a university with £100 ($500) per annum for expenses and a conditional third year.

Wilfrid Lenton.

When the South African war broke out, he left his books and the special work which he had taken up for the London matriculation examination and enlisted as Trooper 10,250 in the 56th squadron, 10th regiment of imperial yeomanry (Royal Bucks, Hussars) and sailed for Table Bay early in 1899, where, after serving as trooper and acting non-commissioned officer under various generals, he received a commission as first lieutenant at Fourteen Streams in the Transvaal and immediately went to Johannesburg to be assigned his command. He was gazetted to the 42d squadron, 12th regiment of imperial yeomanry and joined them at Kroonstad. He served with this

squadron till peace was declared and then went back to England with them. After six months of holiday-making and visiting in England he went to western Canada, and in 1903 entered the Ontario Veterinary College (affiliated with the University of Toronto) as a junior and graduated from that institution in 1905 with the gold medal for best general examination and first prizes in pathology and physiology, second prize in anatomy, third prize in disease and treatment and honors in three other subjects. Going west once more he practiced as a veterinarian at Belmont, Manitoba, till July, 1906, when he was offered the position of assistant veterinarian at the Agricultural Experiment Station, University of Arkansas.

In July, 1907, he was made veterinarian to that institution and assistant in animal pathology. On the resignation of Dr. R. R. Dinwiddie, the departments of veterinary science and animal pathology were reorganized, animal husbandry being classed as a separate department and the remainder being put into one department, veterinary science, of which he took charge. In 1906 he became a member of the Association of Interstate Live Stock Sanitary Boards, which was renamed in October, 1909, the United States Live Stock Sanitation Association. Previous to 1906 the condition in Arkansas in respect to diseases of animals was very unsatisfactory; there were a few inefficient laws in the statutes, but even these were unenforced because it was no one's specific duty to enforce them. They were worded ambiguously, and, for lack of expert opinion, animals affected with such contagious diseases as glanders were given the benefit of any doubt and allowed to live and infect others. Professor Lenton drew up what he considered a good working bill intended to cover all points of animal sanitation and the legislature of 1907-8 enacted this into law as Act 409. Since 1906, eight counties have been entirely freed from the Texas fever tick and placed above the U. S. quarantine line and several others will soon be placed in the free area. After two years' work on his part to this end the entire herd of tuberculous dairy cattle at the State Insane Asylum at Little Rock was destroyed.

On October 9, 1907, he married Miss Gertrude Eva Hay. Of this union one son, Wilfrid Drummond, and one daughter, Ethel Rebecca, have been born.

Max Carl Günther Lentz was born at Hathenow in the Oderbruch Province, Brandenburg, Prussia, February 27, 1857. He was educated by private teachers on the family estate Wusterwitz in the Neumark until 1866. Then he attended the Gymnasium at Frankfurt on the Oder till 1875, and from there he went to the Gymnasium at Königsberg in the Neumark where he graduated in April, 1878. Shortly after this he entered the University of Munich where he studied philosophy for three semesters, but he then changed to the faculty of law and studied jurisprudence one semester in Berlin, one in Zurich, one in Munich, one in Geneva and one again in Berlin. During this time he traveled extensively in Germany, Austria, Italy, Switzerland and France.

Max Carl Günther Lentz.

He came to the United States in April, 1882, and settled in Dallas, Texas, where he spent some twelve months in hunting. After spending a year and a half on the farm of his father near Terrell, Texas, he began his career as a teacher by giving instruction in modern languages at different schools, public and private, in Dallas, Texas. The next five years, 1887-92, he spent in business as a member of the firm Lentz Brothers, architects. During this period the firm built about fifty private residences in Dallas and Oak Cliff, Texas. He then resumed teaching by giving instruction in French, Italian and music at the Oak Cliff College for Young Ladies. In 1894 he accepted a position as instructor of modern languages and Greek at the Paterson Military School, Paterson, N. J., which position he kept seven years. During this period he also taught at the St.

Aloysius Academy (German, French, Latin), the Mary Bryan Institute (German), and the Graves Classical and English School (German, Latin and Greek).

In 1901 he founded the Paterson Academy, a preparatory school, of which he was the principal. The ten million dollar fire in February, 1903, which destroyed the whole business section of Paterson, made an end of the Paterson Academy. In 1904 he became associate editor of the National Cyclopedia of American Biography. In this capacity he interviewed leading Americans in Newark, N. J., and Boston, Mass., and wrote their biographies, an occupation which proved to be more interesting than lucrative. In August, 1905, he accepted the position as acting professor of German language and literature at the University of Maine. During the summer of 1906 he visited New Brunswick and Nova Scotia. In 1906 he was made assistant professor of German language and literature in the University of Maine. In September, 1907, he came to the University of Arkansas as professor of Germanic languages. In December, 1905, he married Miss Agnes Lucie Meinecke, who was born in Hamburg, Germany.

He has edited the following books: Stifter, Das Heiderdorf, with Introduction, Notes and Vocabulary; Heyse, Anfang und Ende, with Introduction, Notes and Vocabulary; Heyse, L'Arrabbiata, with Introduction, Notes, Vocabulary and Material for German Prose Composition; Groller, Incognito, with Introduction, Notes, Vocabulary, and Material for Prose Composition; Two German Tales (Wigo by Jacobsen and Der Tschokoi by Kraner), with Introduction, Notes, Vocabulary and Material for Prose Composition; Conversational German (unpublished).

Charles Hendee Leverett, son of F. P. and Matilda Leverett, was born in Boston, Massachusetts, November 30, 1833. He was descended from a line of noted scholars, statesmen and jurists of Massachusetts. At the age of sixteen he entered the University of South Carolina and completed a thorough classical and literary course. He graduated

at nineteen, receiving the A. M. After his graduation he taught in his adopted State until the beginning of the Civil War, when he joined Colock's brigade and served three years. He was also in General Wade Hampton's Legion. In September, 1868, he was called to Searcy, Arkansas, to take charge of a high school at that place. The next fall he went to Washington County to teach at the Ozark Institute, a few miles north of Fayetteville. In 1871 he was elected to the chair of ancient languages in the University of Arkansas which was then in progress of organization. His connection with the university was continuous until the sweeping changes of 1885. He was recalled as adjunct professor of ancient languages in 1888, and was later made full professor. In 1894 the department was divided and he became professor of Greek and held this position one year.

James Junius Lafferty.

He was not only a scholar and splendid disciplinarian, but also a man of humor. There is a tradition that many a dull faculty meeting was enlivened by his keen but kindly sallies. He was also a shrewd business man. At the time of his death he had acquired considerable wealth. He was a member of the Episcopal Church. He was married to Miss Julia Simons, of Charleston, South Carolina, in 1861. Of this union twelve children were born. He died in Fayetteville, November 12, 1897.

Alvan Fayette Lewis, son of Isaac H. and Frances (Stone) Lewis, was born in Warren County, Kentucky, October 9, 1861. He is of Welsh descent, his ancestors having been among the pioneers of Kentucky. After graduating from the Pittsburg High School, Bowling Green, he entered Ogden College and graduated with the B. A. in 1881. In 1884 he received the B. A. from Princeton, the M. A. in 1887, and the Ph. D. from Johns Hopkins in 1899. He also studied in Berlin during the winter semester, 1898-9, and also spent one winter at Leipsic. His career as a teacher began as principal of the grammar school of Ogden College. After leaving Princeton he taught for one year in the Male and Female Institute at Bardstown, Kentucky. He left there in 1885 to become an instructor in the University of Arkansas, where he remained two years. He then went to the West Florida State College at Tallahassee for two years, and in 1892 was called back to the institution as president. This position he held until 1897. In 1899 he was called back to the University of Arkansas to take charge of the department of history. In the fall of 1901 he was compelled to give up his work on account of ill health and was granted leave of absence for one year, but at the end of that time he resigned. In June, 1904, feeling that his health had been sufficiently recovered to justify the step, he accepted an unexpected call to the presidency of Waynesburg, (Penn.), College. At the end of the year he resigned and went abroad. In June, 1906, he was called to the presidency of his alma mater at Bowling Green,

Alvan Fayette Lewis.

world positions in those days. He is the author of Higher Education in Kentucky. U. S. Government, 1903. He is unmarried.

Antonio Mattoon was born at Pozzolengo, a town not far from Brescia in Lombardy, Italy, in 1877. When only a few years old he was brought to his parents in Canal where he remained three years. His father took him back to Italy and put him in school. At an early age he entered an elementary school of a six-year course and at the age of twelve he was admitted to the Ginnasio, a classical school with a five-year course, and later to the Liceo, another classical school with a three-year course, leading to a Licenza, corresponding, as far as a comparison can be made, to the B. A. degree granted by representative colleges of this country. After graduating from the Liceo at the age of twenty, he entered the University of Padua, where he did graduate work in the Facoltà di Lettere.

Antonio Mattoon.

While at Padua he conceived the idea of joining his parents in New York and learning English, while carrying on his graduate work, intending, however, to return to Padua and finish his work leading to the doctor's degree. The plan was carried out only in part. Early in 1901 he came to America. From New York he moved with his family to Waterbury, Connecticut. A little over a year after his arrival he was able to use English with a certain degree of fluency. While improv-

ing his knowledge of English he kept up the study of his university subjects, which, printed in lecture form as they were developed by his professors at Padua, were sent to him regularly by student friends of his. It happened, however, that the school authorities of Waterbury, Connecticut, where he was staying, decided to include in the winter evening courses an elementary course in English for the benefit of the resident Italians. The place was offered to Professor Marinoni who gave instruction for two consecutive winters. He then entered Yale University as a graduate student where he received his A. M. degree. In October, 1904, he was appointed to the position as lecturer in the Romance languages in Columbia University during the absence of Dr. Page. At the close of that school year he was appointed as adjunct professor of Romance languages in the University of Arkansas. Two years later, upon recommendation of President Tillman, the department of English and modern languages was divided into three departments, viz., English, German, and Romance languages. He then became the head of the department of Romance languages with the rank of professor.

Aside from his school work, professor Marinoni has traveled extensively in Europe and especially in France where he remained for months at various intervals. While in this country Professor Marinoni was associated with some of the noted educators. He has written a critical study on Carducci published in the South Atlantic Quarterly (July, 1907) and another on Heredia is to appear soon. He has also published an Italian text-book for college use and his work on the Modern Lyrics of France (written in collaboration with Dr. Carroll) has recently been accepted for publication by W. R. Jenkins & Company of New York. He has further prepared an Italian Anthology of the works of Carducci, an Italian grammar, and a collection of French stories by Maupassant. These books are at present in the hands of the publishers.

He was married July 30, 1908, to Miss Rosa Zagnoni of Brooklyn, New York. Of this union two daughters (twins), one of whom survives, have been born to them.

Simon James McLean, son of James and Mary McLean, was born on June 14, 1871. He attended private and public schools in the city of Quebec and Cornwall, Province of Ontario. In 1885 he entered the Ottawa Collegiate Institute from which he graduated in 1890 as medalist in English and history. In 1890 he entered the University of Toronto and received the degree of B. A. in 1894, standing first in political economy. He was awarded the Ramsay post-graduate scholarship in political economy and later the Mackenzie Fellowship in political economy in the University of Toronto, and received the degree of LL. B. from this institution in 1895. After this he held fellowships in economics and political science in the Columbia and Chicago Universities, receiving the M. A. from the former in 1896, the Ph. D. from the latter in 1897.

Simon James McLean.

In 1897 Mr. McLean was appointed the first incumbent of the recently established chair of economics and sociology in the University of Arkansas. This professorship he held until 1902, when he resigned to accept the position of associate professor of economics and head of the department of economics and social science in Leland Stanford Junior University. In January of 1906 he resigned this position to accept the associate professorship of political economy in the University of Toronto. In September, 1908, he resigned this position to accept an appointment as a member of the Railway Commission of Canada.

Throughout his career he has been especially interested in the problems of transportation. While he has devoted attention to the transportation problems of England and of France, his special interests have been concerned with the problems presentd by Canada and the United States. These he has studied from the comparative standpoint. In this connection he has conducted special transportation investigations for the governments of Canada and of the United States.

During the period 1898-1902 he acted as an expert adviser to the department of railways and canals of Canada in connection with contemplated changes in the railway policy of Canada. In 1901 he was appointed special commissioner on railway rate grievances for Canada. In this capacity he conducted investigations throughout Canada. The results of his investigations were embodied in a report published in 1902. In the following year the railway law of Canada was revised in accordance with Mr. McLean's recommendations and a railway commission for Canada was appointed. He also acted in an advisory capacity in the rearrangement and drafting of the new railway act. In the period 1904-05 he acted as special expert agent of the United States Bureau of the Census and of the Interstate Commerce Commission in connection with the investigation which these bodies were conducting in regard to the valuation of railways in the United States. Mr. McLean had charge of the investigations in the states of California, Oregon, Washington, Idaho, Utah and Nevada. In 1905 he was appointed chairman of the transportation section of the Commonwealth Club of San Francisco. His interest in the labor problem was recognized in his appointment as chairman of a commission appointed to investigate labor disputes in the Temiskaming mine in the cobalt-silver mining district of Canada.

Mr. McLean has been especially interested in the problems of practical economics—transportation, banking, commerce, labor, etc. During his residence in Arkansas he read papers on banking topics before the Northwest Arkansas Bankers' Association and the Arkansas Bankers' Association. He has published a large number of articles in newspapers and periodicals in the United States, Canada, England and France. The following list gives the more important titles of his published work:

"Tariff History of Canada," University of Toronto Studies, 1905.

"Social Settlements," Canadian Magazine, 1897.

"Beginnings of Canadian Railway History," Canadian Magazine, 1899.

"Canadian Railways and the Bonding Question," Journal of Political Economy, 1899.

"History and Evolution of Banking," Proceedings of Northwest Arkansas Bankers' Association, 1899.

"Street Railways and the Public," Journal of Political Economy, 1899.

"The Arkansas Railway Commission Law," Journal of Political Economy, 1899.

"Bank Note Circulation in the United States," Proceedings of Arkansas Bankers' Association, 1900.

"Federal Regulation of Railways in the United States," Economic Journal (London, England), 1900.

"City Government in Arkansas," Annals of American Academy of Political and Social Science, 1901.

"The Use of Credit Instruments in Business in Arkansas," Proceedings of Arkansas Bankers' Association, 1901.

"Railway Rate Regulation in Canada," Forum, 1902.

"The English Railway and Canal Commission of 1888," Quarterly Journal of Economics, 1905.

"Railway Rate Regulation in Canada, England and France"—three articles in the Railway World, 1905.

"The St. Lawrence Route"—a series of four articles, Railway Age, 1907.

"Some Recent Decisions of the Canadian Railway Commission," Railway Age, 1907.

"The Early Federation Movement in Australia," University Monthly, 1908.

"The Reorganization of the Canadian Railway Commission," Ibid., 1908.

"The Currency Question in Indo-China," Ibid., 1908.

"La Politique Canadienne de subvention des Chemins de Fer," Revue Economique Internationale, Brussels, 1908.

Aside from those named he has written for the Quarterly Review of London and the Economic Journal of London. Professor McLean is a member of the British and of the American Economic Associations. He is also a member of the executive committee of the Canadian Club of Toronto.

He was married to Miss Hellen Baillie McDougall in 1899. Two children have been born to this union.

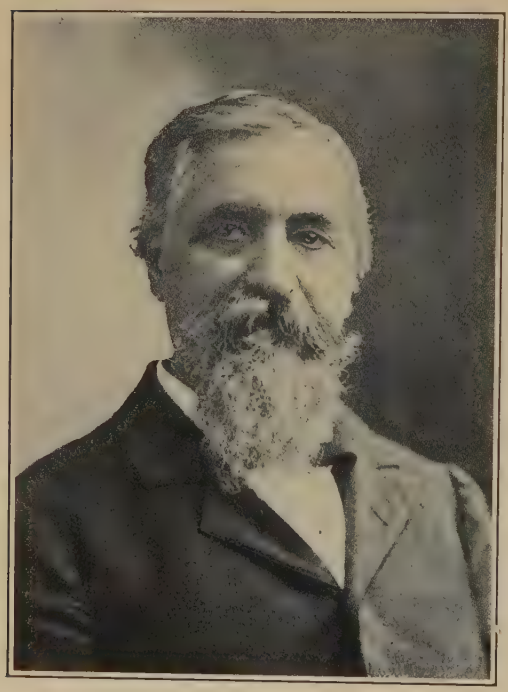
Jerome Fee McNeill, B. S., M. A., was a native of Ohio, a graduate of Antioch College, also of Indiana University. He married Miss Mary Alderson of Boston. For several years he taught in Indiana, and was later superintendent of schools at Moline, Illinois.

Professor McNeill was connected with the University of Arkansas from 1890 to 1898, first as professor of biology and geology, later, on the division of the department, as professor of biology. Aside from his work in biology, Professor McNeill displayed an intelligent interest in three phases of college work. Under his direction, the University library was rescued from a state of chaos by the introduction of a better system of organization and classification. He himself acted as librarian. He was the promoter of the lecture course, which for several years commanded unusually able talent and was self-supporting. Professor McNeill was one of the first men of the faculty to evince an interest in athletics at the university. For the past several years he has been professor of biology at Florida State College.

Albert Ernest Menke, born June 30, 1861, was educated at Kings College, London, England; Harvard University, and at Halle University, Germany. He held the Daniells scholarship in Kings College and the Sibley fellowship in Cornell University, from which institution he took the Ph. D. degree. He was later fellow in chemical societies of London and Berlin. He was married December 3, 1900, to Mary Lillian Brown, daughter Judge B. J. Brown, Little Rock, Ark. In 1883 he was elected to the chair of chemistry in Kentucky State College, which position he held until 1887, when he was elected professor of chemistry in University of Arkansas in 1887. This chair

he continued to hold until 1902, when he resigned. He is now president of the Ferro-steel Company. Professor Menke is the author of the following original investigations: "Salts of Nitrous Oxide;" "On Some Points in Chemical Dynamics;" "Alkaloids of Veratrum Viride;" "Alkaloids of Japanese Aconite Root;" "Curcumin;" "Synthesis of Bomeol;" "Turmerol." He has also written other papers, some conjointly with D. C. R. Alder Wright of St. Mary's Hospital Medical School, London, and some with Professor C. Loring Jackson of Harvard University.

James Mitchell, son of James and Mary Mitchell, was born at Cane Hill, Arkansas, May 8, 1832. His opportunities for an education were very meager. Owing to his father's financial difficulties he was compelled to spend the greater part of his time on the farm. However, he managed to secure a little education when his services were not so greatly needed. In 1846 he went to Fort Smith and assisted a friend and former teacher in a school there. In the spring of 1847 he returned home and took up the farm work. Until he was twenty-three years of age, he alternately attended school and followed the plow. His last school years were spent at the old Cane Hill Collegiate Institute—later Cane Hill College. In 1856 Mr. Mitchell received an appointment as United States deputy surveyor for the territories of Kansas and Nebraska. He returned home in 1858 and in the fall of 1859 began a school at the academy at



James Mitchell.

Evansville, Arkansas. In 1860 he was elected to the state legislature and served one term. At the opening of the war he joined the Confederate army as a private in an independent cavalry company and continued in that part of the service through the summer's campaign of 1861. In 1862 he entered the infantry as a lieutenant and remained in that branch of the service until 1863. In December of the same year he was transferred to the cavalry and appointed quartermaster for Crawford's regiment. After the war closed Mr. Mitchell lived for a time in Texas, but later returned to Cane Hill. When the college there, which had been burned by the Federals, was rebuilt he was elected to a professorship and taught there steadily for the next six years. During this time this institution conferred on him the degree of B. A.

In 1874 he was unanimously elected to the chair of history and English literature in the Arkansas Industrial University at Fayetteville, which place he at once accepted. In 1877 he resigned his chair in the university to accept an offer to take editorial charge of the Little Rock "Gazette." After two years Mr. Mitchell severed his connection with the "Gazette" (May, 1878) and the following September with General W. D. Blocher purchased from Colonel J. N. Smithee the "Arkansas Democrat." In 1890 the Arkansas Democrat Company was formed with Mr. Mitchell as president. He was editor-in-chief of the "Democrat" until a little more than two months before his death, when illness compelled him to take his bed.

Through all of his newspaper life the old teacher was ever apparent. No subject was of more absorbing interest to him than that of schools, as the files of the "Democrat" abundantly attest. Its columns were ever open to discussions looking to the betterment of any and all schools, but especially was he interested in the public school system of Little Rock and was ambitious to see it brought to the highest standard of excellence. In recognition of his services to this end the board of directors a year and a half ago ordered one of the new public schools to be called "The James Mitchell School." Mr. Mitchell urged more ardently than anything else the policy of paying the teachers better salaries, and equal salaries for men and women where the work was equal, arguing always that it was the only means of

securing competent teachers. These ideas he especially urged with regard to the teachers at the state university, of which he served as a trustee for several years.

Mr. Mitchell was postmaster at Little Rock during Cleveland's second administration, 1893-1897; a commissioner for Arkansas to the World's Fair at Chicago; member of the Little Rock public school board; member of and at one time president of Arkansas Editorial Association and member of the National Editorial Association; president of the Peoples' Building Association and member of the board of trade. He was a member of the Masonic fraternity, having joined at Fayetteville before the war, but took no degree higher than the Royal Arch. He was a member of the Knights of Pythias and a member of the local camp ("Omer Weaver") of Confederate veterans.

He was married to Miss Elizabeth Latha, January 31, 1860. Eight children were born of this union, of whom seven survive: Mary, William Starr, Frances, Alice (Mrs. John E. Coates), Jane (Mrs. Ashley Cochrell), Horace and James. He died at Little Rock, June 26, 1902.

Brainerd Mitchell, Jr.

Brainerd Mitchell, Jr., was born at Pearl, Pike County, Illinois, February 17, 1878. The first fifteen years of his life were spent in Illinois, Florida, Tennessee, and Nebraska. His parents came to Arkansas in 1893 and settled on a farm in Arkansas County. His education up to this time was received in the public schools.

During the Spanish-American War he served in the second regiment of Arkansas

volunteer infantry from May, 1898, until the regiment was mustered out in February, 1899. This time was spent in camps in Georgia and Alabama.

On the 14th of March, 1899, he entered the preparatory department at the University of Arkansas. He spent seven years at this institution, bearing the burden of sending himself to college. He received an L. I. certificate in 1905, and the degree of B. M. E. in 1907 In 1905, while a senior student, he was appointed adjunct professor of mechanical engineering. He is now associate professor.

Hugh Ellis Morrow.

Hugh Ellis Morrow, son of M. M. and Josephine (Ellis) Morrow, was born December 14, 1882, in Washington County, Arkansas. In 1904 he was graduated from the University of Arkansas, taking the B. S. A. degree, and has since taken graduate work in chemistry at the University of Chicago.

In 1904 he was elected to the position of adjunct professor of chemistry, and in 1906 to the position of associate professor. He is a member of the American Chemical Society. He was married to Miss Madge Bates in 1908, and has one child, a son.

Antony Moultrie Muckenfuss, son of Dr. B. A. and Rosalie (Stewart) Muckenfuss was born August 5, 1869, on Sullivan's Island, in the harbor of Charleston, South Carolina. He entered Wofford

College, from which he received the B. A. degree in 1889, and the master's degree in 1890. He then entered the teaching profession, and from 1889 to 1891 he was principal of Dacho high school, South Carolina. He then entered the University of Virginia. In 1894 he entered Johns Hopkins University, from which he received the Ph. D. the following year. After receiving his degree he became a student in Berlin in 1895, and the summers of 1896, 1898, and 1902 were spent in the University of Chicago. He was professor of chemistry and physics at Millsap College, Mississippi, 1893-94 and 1895-1902. He was then professor of chemistry and physics in the University of Arkansas, 1902-04, and professor of chemistry in the same institution, 1904-05. He then accepted the chair of chemistry in the University of Mississippi, which position he now holds. He is research expert for Lowe Brothers Company, Dayton, Ohio. He is a member of the American Association for the Advancement of Science; American Chemical Society; the Society of Chemical Industry of England, and the Mississippi Historical Association.

Antony Moultrie Muckenfuss.

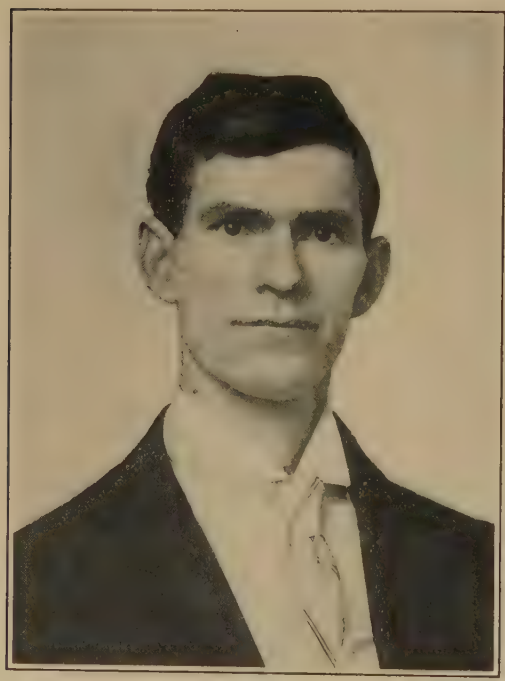
He is author of the following. Two Bulletins on Fertilizers for the experiment station in the University of Arkansas; two chemical researches for American Chemical Journal, Baltimore; two articles on "Industrial Mississippi" for Mississippi State Historical Society; "Research on Rapid Test for Paints" for the Lowe Brothers Company; Bulletin on "Manufactures in Mississippi" for the 12th U. S. Census;

"Development of Manufactures in Mississippi" for the State Historical Society. He was married to Miss Margaret K. Galloway in 1897. Three children, two of whom survive, have been born to them.

Martin Nelson was born and brought up on a farm in Crawford County, Wisconsin. After having received a common school education he moved with his parents to Vernon County and attended the high school at Verogua, Wisconsin, from which he was graduated in 1896. He taught school for one year, but in 1898 he entered the normal school at Stevens Point, Wisconsin, from which he was graduated in 1900. He then became principal of the Star Lake Schools, but resigned after two years to attend the University of Wisconsin. He received the degree of B. S. A. in 1905 and the M. S. in 1906. He then accepted a position with the experiment station as collaborator of agricultural history and conditions with reference to its scientific bearing upon soil depletion and soil conservation. In September, 1906, he accepted a position in the department of field crops and soils of the University of Nebraska. He was made a member of the faculty and station staff and a member of the faculty in the summer school. In 1908 he took charge of the department during the absence of the professor. In September, 1908, he accepted the position of professor of agronomy in the College of Agriculture and agronomist in the experiment station of the University of Arkansas.

Martin Nelson.

Rufus Jerry Nelson, son of Sam Houston and Alice (Wyatt) Nelson, was born December 6, 1871, in Hemstead County Arkansas. He left Arkansas with his parents when but two years old and went to Gonzales County, Texas, where he lived until he was about twelve years of age. His parents then moved to Paraclifta, about twelve miles from De Queen, their present home. He attended the public schools of Sevier County. entered the University of Arkansas January 4, 1900. He received normal diploma L. I. in 1903, took the degree of B. S. A. from the university 1904, M. S. in agriculture in 1907. He was assistant superintendent of horticulture at Louisiana Purchase Exposition at St. Louis, 1904; assistant principal Rocky Comfort high school, Foreman, Arkansas, 1904-05. Was appointed field agent for the agricultural experiment station (Arkansas) July, 1905. He was elected professor of agriculture in the College of Agriculture of the University of Arkansas, February 1, 1908. He attended the graduate school of agriculture at Cornell University during the summer of 1908. He was elected professor of agricultural education in the University of Arkansas in June, 1909. In addition to teaching, he assisted the manager to hold farmers' institutes over the State. He has written bulletins 89, 94, 98, Arkansas Agricultural Experiment Station, on rice growing; also Circular 1, an extension bulletin, "Corn Judging," a circular for boys' corn clubs of the State. He has written a good deal for the press on agricultural



Rufus Jerry Nelson

education. Since January, 1910, he has been editor of "Farm and Ranch" at Dallas, Texas.

He is a member of the Arkansas Polytechnic Society, Arkansas State Horticultural Society, American Forestry Association, and of the Arkansas State Teachers' Association. He was married to Miss Flossie Ella Sanderford, June 14, 1908. One child who is now dead was born to them.

Clifford Lewis Newman, son of J. S. and Elberta (Lewis) Newman, was born at Columbus, Georgia, July 25, 1864. In 1865 his parents moved to Orange County, Virginia, and engaged in farming on the old Hilton homestead, which is three miles from President James Madison's old home at Bloomfield. In 1867 he moved with his parents to Sparta, Hancock County, Georgia, and engaged in farming and fruit growing until 1875, when his father became editing clerk of Georgia state department of agriculture with residence in Atlanta. Mr. Newman entered the public schools of Atlanta and advanced to highest grade of the Atlanta high school in 1882. In October, 1883, he entered the sophomore class of A. & M. College of Alabama, graduating in the course of agriculture and chemistry in 1886 with honor in geology, botany and agriculture. While a student he was prominent in athletics. From June, 1886, to August, 1887, he assisted as graduate student in agriculture and horticulture experiment work of Alabama Experiment Station.

Clifford Lewis Newman.

In September, 1887, he entered upon the duties of assistant professor of agriculture in University of Tennessee. In 1889 he was elected principal of the North Alabama Agricultural School, Athens, Alabama. Two years later he was elected assistant agriculturist of the Arkansas experiment station and was placed in charge of the branch station at Pine Bluff. A year later this branch was discontinued and another established at Camden, Ouachita County. He was in charge of the Camden branch from January, 1893, to September, 1897, when he was elected professor of agriculture in the University of Arkansas, and agriculturist of the experiment station. He held this position until 1904. In 1905 he was elected associate professor of agriculture and agronomist of experiment station at Clemson College, South Carolina. He is now dean of department of agriculture of A. & M. College of North Carolina at Raleigh.

He is author of seventeen bulletins issued by the Arkansas experiment station, one bulletin by the Tennessee experiment station and five by the South Carolina experiment station. While at the Arkansas experiment station he accomplished work with cow peas, particularly in breeding, that led to the awarding of a gold medal by the Louisiana Purchase Exposition held in St. Louis in 1904. He is regarded as one of the highest national authorities on cow peas and cotton. After several interruptions in such work he settled down in South Carolina to certain experiments with cow peas and cotton, embracing hybridization and pedigree selection. A number of cow pea and several thousand cotton hybrids are now under observation and development at Clemson College. He has written extensively on agricultural subjects for the public press, particularly for agricultural papers and magazines. He is a member of American Breeders' Association and corresponding secretary of the Farmers' Society of Pendleton, South Carolina. He is now engaged in writing a history of Farmers' Society of Pendleton and a book on cow peas.

He was married to Miss Fannie Stanley, December 6, 1893. Three sons were born to them. His first wife died in 1898, and in 1900 he was again married to Miss Nell Gates, daughter of Professor N. P. Gates of Fayetteville, Arkansas.

Christian Percival Norgord.

Christian Percival Norgord was brought up and lived on a farm at Bangor, La Crosse County, Wisconsin, until he was eighteen years of age. In 1891 he entered the Bangor high school and completed the science course in 1895. In 1898 he finished the long course at the Whitewater State Normal School. From 1898 to 1902 he was principal of the public high school at Ontario, Wisconsin. During the summers of these four years he attended the summer school at the Wisconsin University, and, with the exception of writing a thesis, completed the course leading to the degree of Ph. B., specializing in science in 1903. In 1905 he completed the long course in agriculture at the Wisconsin college of agriculture and received the degree of Bachelor of Science. In 1905 and 1906 he had charge of the field and breeding work in barleys for the United States department of agriculture, with headquarters at Madison, Wisconsin. During the years 1907 and 1908 he was professor of agronomy in the College of Agriculture, University of Arkansas, and agriculturist in the experiment station. From July 28, 1908, to the present time he has been assistant professor of agronomy at the Wisconsin Agricultural Experiment Station and College of Agriculture.

J. H. Norton was born on a farm in Scotland County, Missouri, July 9, 1873. He received the following degrees from the University of Missouri: B. Agr., 1897; B. S., 1899; and M. S., 1907. He is a

member of the Association of Official Agricultural Chemists, a member of the American Chemical Society and a member of the American Association for the Advancement of Science. He was sergeant in company I, 5th Missouri U. S. V. I. during the late war with Spain. This company was composed of cadets from the University of Missouri and probably was the only strictly college company in the service.

From 1899 to 1901 he was teacher of chemistry and physics in the high school at Springfield, Missouri; 1901 to 1903 he was assistant forest expert in the Bureau of Chemistry, U. S. department of agriculture; 1903 to 1904 he was assistant chemist, North Dakota agricultural experiment station; 1904-08 he was chemist, Arkansas agriculture experiment station and professor of agricultural chemistry in the University of Arkansas; 1908-09 he was assistant professor of fertilization, University of California. In 1909 he became assistant professor of agricultural chemistry in charge of the citrus experiment station in the University of California.

Lee Sedwick Olney.

He wrote Bulletin No. 88, Arkansas Experiment Station, "Food Adulteration," also Bulletin No. 100, "Meteorological Records."

August 8, 1906, he was married to Miss Susan Merriman Reid of Bucyrus, Ohio. They have one child, Richard Reid.

Lee Sedwick Olney, son of G. S. and Virginia (Belt) Olney, was born at Fielden, Jersey County, Illinois, May 27, 1883. His father was a merchant at Fielden until ill health caused him to retire from active business in 1897,

at which time he, with the family, moved to Mena, Arkansas. Mr. Olney entered the public schools at Fielden September 9, 1889, at the age of six years. After spending eight years in the graded school he entered the freshman class of the Jerseyville, Illinois, high school, remaining there for one year and then one year in the public schools at Mena, Arkansas. The years of 1899 and 1900 were spent in the Mena Hendrix Academy at Mena, Arkansas, then a branch of Hendrix College; while there he took the medal for scholarship offered by Hendrix College. In September, 1901, he entered the University of Arkansas, from which he was graduated in 1905 with the degree of Bachelor of Electrical Engineering. While a student he took a prominent part in athletics, playing on the Varsity eleven every year. He was also a member of the Garland Literary Society and of the Kappa Alpha fraternity. He was class orator both junior and senior years.

The first summer after graduation he spent in camp with an engineering party laying out the Mena & Eastern Railroad, a small road connecting Mena and Hot Springs, Arkansas, acting as assistant engineer and transitman. The summer of 1907 was spent with the engineering department, transformer design of the Fort Wayne Electric Works of Fort Wayne, Indiana. The summer of 1909 was spent in graduate work at the University of Michigan.

He is a member of the Masonic fraternity, of the Methodist Episcopal Church, South, and an associate member of the American Institute of Electrical Engineers. Since graduation he has held a position on the teaching force of the engineering department of the University of Arkansas, rising from the rank of assistant to that of associate professor.

On December 17, 1908, he was married at Fayetteville, Arkansas, to Miss Barbara Claire Davis.

Lanning Parsons was born in Ohio, April 24, 1872. He was appointed from Ohio as a cadet in the Military Academy in June, 1892. He was made second lieutenant of the fifth cavalry in June, 1896, but a year later he was transferred to the tenth cavalry and then to the ninth cavalry in August, 1897. He continued in this capacity

until 1901, when he was made first lieutenant of the fourth cavalry. He was made captain of the eighth cavalry in February, 1903. He was detailed professor of military science and tactics in the University of Arkansas January 9, 1903, and served in this capacity for one year. He was transferred to the ninth cavalry in December, 1904.

Nicholas Bartlett Pearce, son of Allon and Mary Pearce, was born in Caldwell County, Kentucky, July 20, 1828. He graduated with honors at Cumberland College, Kentucky, before entering West Point, at which place he spent four years, graduating with highest honors in 1850. In 1858 he resigned from the U. S. army and settled at Osage Mills, Arkansas, engaging in mercantile business, until the breaking out of the Civil War, when he was appointed to organize and command the Arkansas state troops, in the western half of the State. After the state troops were merged into the Confederate army he was made a commissary and assigned as chief to General Van Dorn's command. After the battle of Shiloh he was ordered to Texas and was there appointed on the military board of Texas by the governor. In this capacity, as the only qualified military officer of that board, he continued to serve during the remainder of the war. In 1865 he visited Washington City and was pardoned by President Johnson.

Nicholas Bartlett Pearce.

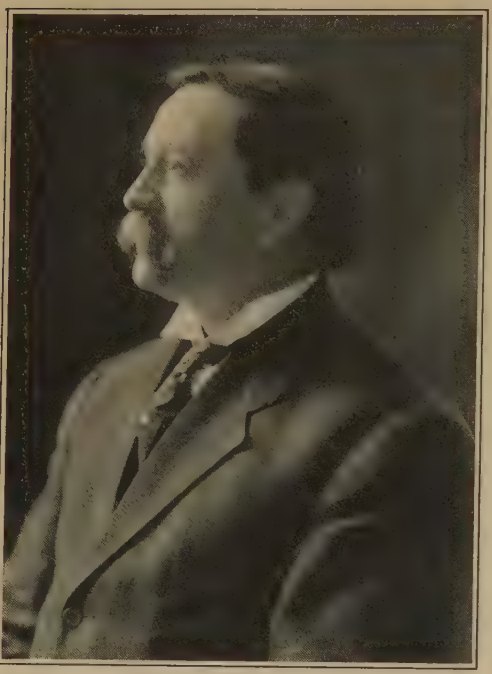
He returned in 1867 to the old homestead at Osage Mills, rebuilt his residence, mill, and store, and engaged

in business. In 1872 he was appointed professor of mathematics in the University of Arkansas at Fayetteville. In 1874 he severed his connection with the university and returned to Osage Mills. In 1879-84 he was in the employ of a wholesale house in Kansas City, Missouri, and traveled in Texas, having moved there on account of his wife's health. Later he was with Lombard Investment Company as an expert land examiner and manager of field men. In all these varied employments he was successful.

General Pearce died at Dallas, Texas, at the home of his daughter, Mrs. J. T. Choice, March 8, 1894. He was married to Miss Nannie Smith, January 25, 1855. Four children were born to them.

George M. Peek was born in Richmond, Virginia, September 29, 1870. He attended private schools and was an apprentice in the shops of the B. & O. R. R. Company in Baltimore. He also served in the shops of the Baxter Electric Motor Company of Baltimore. After graduating from the night school of the Maryland Institute of Art and Design, he became machinist in the shops of the Richmond Locomotive Works and later draftsman for the same company. Later he graduated from the Virginia Mechanics Institute and attended the University of Virginia, graduating with the degrees of mechanical engineer and civil engineer. During one summer he was draftsman for the Newport News Shipbuilding and Dry Dock Company. He was then made instructor in engineering at the University of Virginia and served six sessions. In 1896 he was called to the chair of mechanical engineering in the University of Arkansas and held this position for two years. After leaving Arkansas he opened a private office as engineer in Hampton, Virginia. He has served as engineer for the Pelton Water Wheel Company and has installed power plants in the United States, Mexico, Canada, and Spain. At present he is engaged in consulting work in St. Louis, Missouri. He is married and has two children.

Frank Welborn Pickel was born at Williamston, South Carolina. He attended the public school of his native town and in the fall of



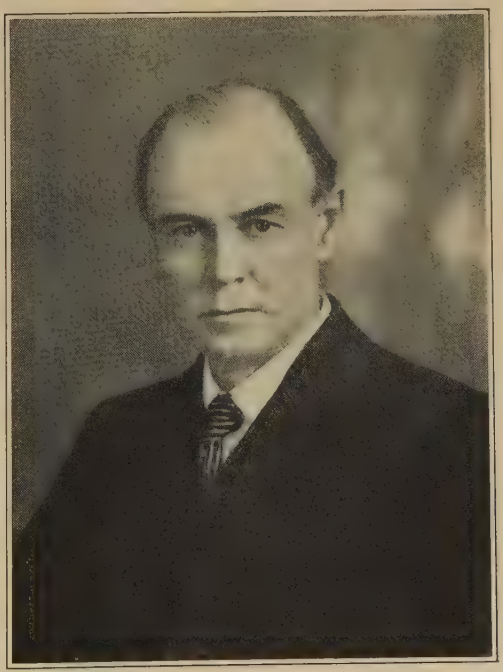
Frank Welborn Pickel.

1882 entered Furman University, from which he received the B. A. degree in 1886. He taught in the public school of his home two years, then entered the University of South Carolina in the fall of 1888 and received the master's degree from this institution in 1890. In 1889 he was elected instructor of hygiene and bacteriology in the University of South Carolina, and was also bacteriologist for the South Carolina experiment station, in which capacity he served two years. In the spring of 1891 he was elected professor of natural science in the Agricultural and Mechanical College of Florida, but remained here only one year. Desiring to pursue his biological studies further, he entered the John Hopkins University in the fall of 1892 as a graduate student of biology and remained there two years until June, 1894. He was professor of Greek and German in Mississippi College from 1895 to 1897. In the fall of 1897 he went to the University of Chicago and received the degree of master of science from that institution in January, 1899. He continued his research work there until the following August, when he was elected to his present position, professor of biology in the University of Arkansas.

Some of the papers written by him are as follows: "Physiological Effect of Lacto-Caramel on the Frog Heart;" "Accessory Bladders of Testudinata;" "Origin and Development of Jacobson's Organ;" "Structure and Function of Leaves." In August, 1901, he was married to Miss Allie B. Deupree and they have two sons, Frank Welborn Pickel, Jr., and Elbert Jefferson Pickel.

Robert B. Powers was born in Kentucky, February 26, 1872. He was appointed from Kentucky to the Military Academy in June, 1892. He was made second lieutenant of the tenth cavalry in June, 1896. He was transferred to the seventh cavalry and made second lieutenant in 1897. He continued in this capacity until 1901, when he was made first lieutenant. He was made captain of the seventh cavalry July 16, 1903. He was detailed professor of military science and tactics in the University of Arkansas, January 31, 1905, which position he held for one year.

Albert Homer Purdue, son of Samuel Leroy and Phoebe (Priest) Purdue, was born in Warrick County, Indiana, six miles east of the town of Newburg, March 29, 1861. His paternal grandparents emigrated from North Carolina to Tennessee and later from Tennessee to southern Indiana, where Samuel Leroy was born. His maternal grandfather was of Scotch-Irish and his maternal grandmother of Pennsylvania German descent.



Albert Homer Purdue.

He worked on the farm until he was twenty years of age, at which time he entered the Indiana state normal school at Terre Haute, from which he graduated in 1886. In 1886-87 he was principal of the high school at Sullivan, Indiana, and in 1887-88 he was superintendent of the public schools at West Plains, Missouri. The collegiate year of 1888-89 was spent as a student in Purdue University. In the fall 1889, because of poor health, he resigned the superintend-

ency of the public schools of Plainfield, Indiana, to accept the position of superintendent of building at the government Indian school, Albuquerque, New Mexico. After serving a few months in this capacity, he was made assistant superintendent of the school. He left this position to enter Stanford University in 1891 and was one of the first students on the ground before the opening of that institution. His object in going there was to pursue the subject of geology under Dr. J. C. Branner, who had been made head professor of geology. His time as a student at this institution was employed mainly in the study of geology and allied subjects. He received the degree B. A. in 1893, and during a portion of the following year remained at the university as a graduate student, but left the institution during the second semester to become a candidate before the Republican state convention of Indiana for nomination for state geologist, in which he was unsuccessful.

In the year 1894-95 he was principal of the high school at Rensselear, Indiana. While at Renssalear, his spare time was spent on the study of the glacial geology of northwestern Indiana. In the spring of 1895, he was awarded the senior fellowship in the department of geology, University of Chicago, and in the following June he was elected to the chair of geology in the University of Arkansas.

In the summer of 1892, under the direction of Dr. J. C. Branner, then state geologist of Arkansas, Mr. Purdue worked as assistant geologist on the geological survey of Arkansas in the southwestern part of the State. In the summer of 1900 he was associated with Dr. Branner in the investigations of the zinc and lead deposits of northern Arkansas. Since 1901 his summers have been spent on the United States Geological Survey, and since 1903 the work of that bureau in Arkansas has been intrusted to his hands.

By legislative act he was made ex-officio state geologist in 1907, which action was repeated in the general assembly of 1909. His first work as state geologist was on the slates of Arkansas, the report of which was issued in July, 1909. Besides this Professor Purdue is the author of about thirty Geological reports and magazine articles, mainly on geological subjects. He is a fellow of the Indiana Academy of Science; of the American Association for the Advancement of Science; of the Geological Society of America; of the Geological

Society of London; and a member of the American Institute of Mining Engineers and the National Geographical Society. He is secretary of the National Association of the State Mining Schools.

He was married first September 1st, 1887, to Bertha Lee Burdick of Indianapolis, Indiana, who died October 1st, 1888; second December 22, 1898, to Ida Pace of Harrison, Arkansas. They have two children, Branner Pace Purdue, born March 1st, 1900; Richard Howell Purdue, born November 7th, 1901.

Ida (Pace) Purdue was born near Harrison, Arkansas, January 4, 1869. After receiving a common-school education she entered the University of Arkansas, from which she was graduated in 1888. She took graduate work in the University of Arkansas during the year 1888-89. She then accepted a position in Union College at Oxford, Mississippi, 1890-91. After teaching here one year she then accepted a position in the Valley Seminary at Waynesboro, Virginia. During the year 1893-94 she taught in Central College at Lexington, Missouri. She took graduate work in the Cornell University during the year 1894-95, and the following year was elected associate professor of English and modern languages in the University of Arkansas. She served in this capacity until 1898. During the summer of 1897 she took work in the University of Chicago. She was editor of the Eleusis of Chi Omega, 1899-1904, and has served as

Ida (Pace) Purdue.

national president of Chi Omega fraternity since 1904. She was married to Professor A. H. Purdue, December 22, 1898. Of this union there have been born two children, Branner Pace and Richard Howell.

George Dana Purinton was born October 1, 1857. He entered the West Virginia University, from which he was graduated in 1879 with the degree of B. A., and in 1882 he received the degree of Master of Arts. He was graduated with the degree of Doctor of Medicine from the University of Missouri about 1892. He likewise received the degree of Ph. D. He began his career first as a teacher, at the early age of sixteen in a country school in Preston County, West Virginia. Subsequently he held the following positions: Principal of Georges Creek Academy, Pennsylvania, and of Tahlequah Seminary in Indian Territory; superintendent of schools in Piedmont, West Virginia; professor of science, Broaddus College, Clarksburg, West Virginia; vice-president and professor of science in Des Moines College, Des Moines, Iowa; professor of chemistry and physics in Furman University, South Carolina; professor of chemistry and physics in the University of Arkansas; and professor of chemistry in the University of Missouri. Later he practiced medicine in St. Louis, where he died March, 1898. He was married to Miss Helen Fordyce and had two children, both of whom died before reaching the age of maturity.

George Dana Purinton.

William Allen Ramsey.

William Allen Ramsey, son of Simeon D. and Mary (Kilpatrick) Ramsey, was born at Hazelhurst, Mississippi, January 1, 1870. His father was a veteran of two wars, having served in the war with Mexico under General Taylor and in the Civil War with Forrest. He was a lawyer, and both before and after the war between the states held civil offices.

Mr. Ramsey, the eldest of six children, received his elementary and secondary education in the private and public schools of his native town. In 1888 he entered Arkansas College at Batesville, from which he graduated as a Bachelor of Science in 1891. In 1907 his alma mater conferred on him the degree of Master of Arts. After graduation he returned to Mississippi and began the study of law under his father, but having been offered the principalship of the public school at Walnut Ridge, Arkansas, accepted and served one year. He served in the same capacity the following year at Sulphur Rock. In 1893 he succeeded to the superintendency of schools at Augusta, Arkansas. In the summer of 1894 he returned to Mississippi with the intention of entering upon the practice of law, but being elected principal of Jordan's Academy for Boys at Pine Bluff, he resumed teaching. He remained at the head of the academy until the fall of 1896, when he became professor of philosophy and pedagogy in Little Rock University, an attempt having been made that year to revive that institution under a new management.

In 1897 he was elected superintendent of schools at Arkansas City and held that position until 1900, when he became Arkansas manager for the educational department of Woodward & Tiernan Printing Company of St. Louis. He resigned this position in 1902 to accept the principalship of the public school at Benton, Arkansas, where he remained until 1905, when he became principal of the preparatory department in the University of Arkansas. His work in this position has been systematic, reducing the per cent. of failures and of suspensions. He has also canvassed extensively during the summer months.

He has belonged to the state militia of Arkansas and of Mississippi; has served as county examiner of Woodruff and Desha Counties, and has conducted district and county normals for teachers in many sections of the State; he was special enumerator in the southeastern district in 1900 and won the distinction of sending in one of the three best specimen reports of that year.

He is a member of the Central Association of Mathematics and Science; the Western Arkansas and Eastern Oklahoma Association of Superintendents and Principals; the Arkansas Historical Association; the Southern Educational Association and the Arkansas State Teachers' Association. As a member of the mathematics and science section of the state association, he was chairman of the committee which drafted the plan for a "Four Years' Course in Mathematics for High Schools."

His writings consist of addresses, editorials, and contributions to secular, educational and religious periodicals. He has from time to time done editorial and journalistic work. He was married January 1, 1896, to Miss Leone Peel Galvan. Of this union two daughters have been born, Marian Adele (1897) and Henrietta Eugenia (1899).

William A. Read, son of Samuel and Charlotte (Winston) Read, was born at Goodson, Virginia, November 17, 1869. He entered King College at Bristol, Tennessee, from which he received the B. A. in 1888. He then attended the University of Virginia, and later Göttingen and Heidelberg, Johns Hopkins and Grenoble. He received the Ph. D. from Heidelberg in 1897. After his graduation he accepted the position of assistant in the department of English in the University

of Arkansas, 1899-1900. In 1900 he was made professor of English, which position he occupied until 1902. He then resigned his position in the University of Arkansas and accepted the chair of English in the Louisiana State University, where he has since resided. His most important publications are the following: Articles in the Journal of Germanic Philology; "Modern Language Notes," Literaturblatt and Englische Studien. He was married to Miss Trula Franklin, April 4, 1899.

John Hugh Reynolds, son of Jesse M. and Eliza (Grimes) Reynolds, was born at Enola, Faulkner County, Arkansas, January 3, 1869. He was reared on the farm and received his elementary education in the common schools of his neighborhood. The year 1886-87 was spent in Quitman College and the following year in teaching near West Point, in White County. From 1888 to 1893 he was in Hendrix College, taking the A. B. degree. While in college he was active in literary society work, was editor of the college magazine, and took several prizes, among them being an intercollegiate oratorical medal. For three years after graduation he was principal of Fourth Valley high school at Rover, Arkansas, and during part of the time was county examiner of Yell County. He has also conducted a number of county institutes.

John Hugh Reynolds.

Mr. Reynolds took graduate work in the University of

Chicago by correspondence in 1895-96 and in residence in 1896-97, receiving the A. M. degree. He has also done graduate work in Columbia University (1907). From 1897 to 1902 he filled the chair of history and political science at Hendrix College and was vice-president part of the time. Since 1902 he has filled the same chair in the University of Arkansas. In January, 1910, he was unanimously elected president of Hendrix College, but did not see his way clear to accept the position. He has been active in developing the accredited school system at the university and has taken an active interest in the general educational work of the State, having served as president of the Arkansas State Teachers' Association. He organized in 1903 and has since been secretary of the Arkansas Historical Association; he is the author of the laws of 1905 and 1907 creating temporary history commissions and of the law of 1909 creating the present permanent Arkansas History Commission. He has served as secretary of these commissions since their creation and has prepared all of their reports.

Professor Reynolds is the author of "Makers of Arkansas History," of educational pamphlets, of the report of the rural school committee of the State Teachers' Association in 1905; has contributed to magazines, and "The South in the Building of the Nation;" and is the editor of Volumes 1 and 2 of the publications of the Arkansas Historical Association. He is a member of the American Historical Association, National Educational Association, Mississippi Valley Historical Association, American Archives Commisson (for Arkansas), and National Conference for Charities and Corrections (corresponding secretary for Arkansas).

He married, June 27, 1895, Miss Margaret Harwood, Brookfield, Missouri. They have four children living, Ruth, George, Elizabeth and Margaret.

Joachim Rheinhardt was born in Denmark, where his father was a college professor, teaching the classical languages. His mother wrote and spoke five or six modern languages. His home was frequently visited by distinguished Danes and foreigners who spoke many languages. This proved both helpful and stimulating to

Joachim in acquiring foreign tongues and created in him a desire to visit other countries. Shortly after receiving his B. A. degree in 1877 he visited England, Scotland, and the United States as a newspaper correspondent. Later he visited Germany and attended lectures in several of the universities. Returning to Denmark he studied languages, history, and philosophy in the University of Copenhagen. In 1889 he came to New York as correspondent for some Scandinavian papers. Here he met the late Professor Thomas Randolph Price of Columbia University, who urged him to enter the teaching profession and secured his appointment at the University of Virginia in 1894-95 as professor in charge of the department of modern languages in place of the regular professor who was absent on leave. Since then he has taught in several schools and universities, including the University of Arkansas, 1906-07. He has published many articles on linguistic, literary and musical subjects in such periodicals as the Independent, Sewanee Review and others.

Giles Emmet Ripley was born in Adams County, Indiana, June 18, 1874. He received his education in the public schools of Indiana, the normal school at Marion, Indiana, Purdue University, and at the University of Chicago. After his graduation from Purdue University in 1899 he took charge of the department of science in the Eastern Indiana Normal University at Muncie, Indiana. At the end of the first year he resigned to take charge of the department of physics and chemistry in the high school at Racine, Wisconsin. After two years

Giles Emmet Ripley.

of service here he resigned to enter business at Winchester, Indiana. After he had spent two years in business he decided to return to teaching. He then accepted the work in physics and chemistry at Marquette, Michigan. He remained there only one year, at the end of which he resigned to take charge of the department of physical science in the state normal school at Valley City, North Dakota. He remained here only three years, when he resigned to take charge of the department of physics in the University of Arkansas. He is a member of the Central Association of Science and Mathematics; of the Indiana Academy of Science, and of the American Association for the Advancement of Science. His writings consist in the following: "Absorption of Water by Decorticated Stems," in the Proceedings of Indiana Academy of Science, 1898. He was married to Miss Louise Marsh in 1900. Of this union two sons and one daughter were born.

O. F. Russell was a member of the board of visitors in 1877 appointed by the governor to inspect the university. In June of that year he was elected principal of the preparatory department. At the time he resided at Clarksville. He served acceptably in this capacity until the fall of 1880, when he resigned on account of ill health. The resolution of the faculty passed at the time of his resignation said that the "University has lost one of its ablest professors, an earnest and most indefatigable worker and a teacher whose long experience and thorough and successful work has made him prominent among those who have been shaping the course of study and establishing the standard of scholarship in the University."

Edgar Finley Shannon, the son of James Butler and Lois (McCain) Shannon, was born near Millersburg, Kentucky, September 19, 1874. In April, 1879, James Shannon died, leaving his wife with two small children, Edgar and another son, Thomas. With the determination to educate her children, Mrs. Shannon began teaching school. After teaching two years in Kentucky, she learned of a better opening for a school in Monticello, Arkansas, and removed there. It was at Monticello and Pine Bluff, Arkansas, that most of Mr.

Edgar Finley Shannon.

Shannon's childhood was spent. When he was twelve years old his mother sent him back to Kentucky to live with relatives on a farm near Millersburg. From 1887 to 1889 he attended the preparatory classes of Kentucky Wesleyan College at Winchester. In the fall of 1889 he won by competitive examination a scholarship from the Garth Fund of Bourbon County, and entered the freshman class of Central University, then located at Richmond, Kentucky, but since consolidated with Centre College and moved to Danville. This scholarship from the Garth Fund he held during the four years of his college course. His vacations were spent at work on his uncle's farm in Bourbon County. He was graduated from Central University with the degree of B. A. in June, 1893. He hoped after his graduation from college to begin the study of law, but it was necessary for him to earn the money to meet the expenses of the law course. Consequently the scholastic year of 1893-94 found him principal of the public school at Princeton, Arkansas. Contrary to his expectations this work proved exactly to his taste; and dropping all thought of the law, he decided to make teaching his profession.

In 1895 he was elected associate professor of ancient languages in the University of Arkansas. As the scholastic year there began in March after a winter vacation of three months, Mr. Shannon assumed his duties at that time and served until 1902. He was then made associate professor of English and modern languages. In 1906,

at the resignation of the head of the department, Professor Carr, the department was divided, and Professor Shannon was made head of the department of English. He studied at the University of Chicago during the summer of 1897, spent the summer of 1898 in Germany and attended lectures at the University of Leipsic, studied in the Harvard summer school in 1902, 1903, and 1904, and in Columbia University during the summer of 1906. In 1909 he was granted leave of absence for two years from his position as professor of English in the university to pursue graduate studies in Harvard University.

On December 28, 1904, Mr. Shannon was married to Mary Eleanor Duncan, daughter of Isaac W. Duncan, of Fayetteville, Arkansas. To them has been born one child, December 29, 1905, a son, who lived only three months.

Albert K. Short was born in Roanoke, Denton County, Texas, May 5, 1878. He was reared on a stock farm in Wise County, Texas, and educated in the public schools of the same county. He entered the Texas Agricultural and Mechanical College, from which he received the B. S. degree in 1900. He declined the position of farm-demonstration work in connection with the Texas agricultural experiment station to take up practical work in animal husbandry. He established a herd of pure-bred Hereford cattle in 1902 which is still maintained near Decatur, Texas. He was appointed assistant in animal husbandry and

Albert K. Short.

pathology in the agricultural college of the University of Arkansas in 1907; adjunct professor of animal husbandry in June, 1908, and acting professor of animal husbandry in June, 1909. He is a member of the American Hereford Breeders' Association; also of the Texas Hereford Breeders' Association. He was married to Miss Middie Helm, of Rhome, Texas, May 29, 1901. Two daughters have been born to them.

Frederic William Simonds was born in Charleston, now a part of Boston, Massachusetts, July 3, 1853. His early education was obtained in the old Bunker Hill school in his native town. His parents having removed to Richmond, Indiana, in 1864, his preparation for college was made in the schools of that city, where, in 1871, he was graduated from its recently established high school as valedictorian of its first class. He then became, for a short time, assistant to the city engineer. That gentleman having been appointed chief engineer of the Cincinnati, Richmond and Fort Wayne Railroad (now a part of the Grand Rapids and Indiana), he accompanied him on the survey of location as his chief assistant. About this time the fame of a newly founded university at Ithaca, New York, had reached the west, and as the autumn approached he withdrew from the survey, mainly at the solicitation of his mother, and began an active review of his studies preparatory to his entrance upon a university course. In September, 1871, he formally matriculated at Cornell as a member

Frederic William Simonds.

of the class of 1875. Here he came into contact with a band of young and enthusiastic scientific workers, many of whom have since attained commanding positions in the scientific and educational world. While an undergraduate he became greatly interested in the study of geology as presented by the late Professor Charles Fred Hartt, at that time a young man honored both at home and abroad for his exploration and research in Brazil. In his freshman year he was awarded the zoölogical prize for excellent work in the biological line and in his senior year he won the geological prize. In 1875 he received the B. S. and the following year the M. S. With the autumn of 1875 came the appointment to the instructorship in geology and paleontology in his alma mater, which he filled until his election, two years later, to the chair of geology, zoölogy, and botany in the University of North Carolina. Here he materially assisted in the revival of that ancient seat of learning, attracting to his lectures a large and enthusiastic body of students. While the range of his professorship was too large for any one man, unassisted, to cover, he gave courses not only in geology, mineralogy and zoölogy, but in botany and physiology as well, the latter in connection with the medical school. Four years were spent in this arduous work, during which he completed the required course of study and successfully passed the examinations for the doctor's degree at Syracuse University (1879). Overwork and a severe illness caused him to retire from his professorship in 1881. He then went to California, where he remained five years. For a part of that time he taught science in the San José high school and for a year and a half was its principal. He maintained, however, a close connection with his specialty, geology, by frequent visits to the state university. Returning to the east he was, in January, 1887, appointed lecturer on economic geology in Cornell University. The following June he was called to the professorship of biology and geology in the University of Arkansas at Fayetteville. Having been appointed assistant geologist of the geological survey of Arkansas, Washington County was assigned as his field of work. During the two years following Dr. Simonds was engaged, when his university labors would permit, in unraveling the lower carboniferous rocks of northwestern Arkansas. A carefully plotted map, with suitable texts, forms a part of Volume

IV of the Annual Report of the State Geological Survey for 1888. He was next assigned to Benton County in the survey of which he was associated with Professor T. C. Hopkins. The geological investigation of this area and the completion of the map brought the work up to the Missouri border and extended the series of formations studied, in a descending order into the Silurian. In the meantime the vacant chair of geology in the University of Texas was offered to Professor Simonds and was accepted (1890), but work on the Benton County Survey continued during the following annual vacation. The position at Austin brought with it voluntary instruction in biology, which soon led to the establishment of an additional school in the university. This, however, remained nominally under the direction of the professor of geology for another year. About this time, in recognition of his services, the trustees of the University of Arkansas conferred upon him the degree of doctor of science. In 1893 Dr. Simonds visited Switzerland for the purpose of studying glacial phenomena, and Germany for the purpose of obtaining some insight concerning the work and methods of the great universities. As a contributor to scientific journals he is well known. He is the author of "The Geography of Texas, Physical and Political," and of the "Maury-Simonds Physical Geography." He is a member of the following societies: Original Fellow of the Geological Society of America; a Fellow of the American Association for the Advancement of Science, a Fellow of the Texas Academy of Science, and for the year 1899-1900 its president; member of the Sigma Xi Scientific Society, the Phi Beta Kappa Society and of the Kappa Sigma fraternity. In 1877 he married Norma Anna Wood of Syracuse, New York. Their living children are a daughter, Anna Wood, and a son, Andrew Warren. Their elder son, Fred Hartt, died October 22, 1909.

George Karr Spencer was born February 25, 1842, in New Sheffield, Pennsylvania. In 1855 he moved with his parents to Davenport, Iowa. During the summer of 1856 he worked in a saw-mill on the Rock Island Railway. He enrolled as a private in the volunteer service, company B, April 15, 1861, at Davenport, Iowa, and was mustered into United States service May 27, 1861. He was soon commissioned

George Karr Spencer.

as first lieutenant September 18, 1862, and as captain July 24, 1863, and served until the end of the war, taking part in the campaigns of the Mississippi Valley. He was appointed second lieutenant of the 19th United States infantry August 17, 1867, promoted to first lieutenant June 28, 1878, and captain February 20, 1891. He was advanced to the grade of major under provisions of the act of Congress approved April 23, 1904.

After entering the regular army he served in the Indian Territory, Kansas and Colorado, taking part in Indian campaigns, and at military posts in Arkansas, Louisiana, Texas, Kentucky and Ohio. He was on duty at St. John's Military School, Salina, Kansas, in the years 1891-93 and again in 1897-98. In 1900 he was detailed commandant and professor of military science at the University of Arkansas and reported for duty October 11 of that year, remaining there in charge of the military department until January, 1903, at which time he was relieved at his own request on account of ill health. He is not a graduate of any educational institution and did not have the advantages during his youth even of a liberal attendance at a public school, therefore his education was acquired by private tutorage and application to study as opportunity offered.

He was married October 19, 1865, to Harriet Jane McCullough in Davenport, Iowa. They have five children living, four sons and a daughter, and one son dead.

Alvin Arthur Steel, son of John and Hanna (Pearson) Steel, was born at Omaha, Nebraska, November 20, 1877. He received his early education in the public schools of Nebraska and then entered the Omaha high school. After his high school education had been completed he entered the state university at Lincoln, from which he was graduated in 1899 with the degree of B. S. in Civil Engineering. He then took the M. E. degree from Columbia University in 1900. He spent the summers of 1897 and 1898 studying details of mining and working in smelters at various places in Colorado and Nebraska. During the school year 1898-99 he was assistant in chemistry in the University of Nebraska. During the summer of 1899 he was assistant engineer of maintenance of way at the Omaha residence of the Burlington and Missouri River Railroad in Nebraska. September, 1899, was spent studying gold mining, milling and smelting and field geology in the Black Hills of South Dakota and coal mining and coking at Cambria, Wyoming. A part of the summer of 1900 was spent studying geology, iron and cement mining and engineering operation in and near New York City. From September, 1900, to November, 1901, he was employed by Fernando Mining Company, Durango, serving a part of this time as assistant to the general manager and in charge of all the mining work. The rest of 1901 he spent in studying geology and mining in Durango, British Columbia, Mexico, and Arizona. The year 1902 was spent in practical work at mining in Mexico, Nevada, and California. From September, 1902, to Decem-

Alvin Arthur Steel.

ber, 1902, he was assistant superintendent of the Pacific Consolidated Copper Company, in charge of the mine near Reno, and making expert reports upon mines at Wedikin, Nevada, and Bridgeport, California. From January, 1903, to September, 1904, he was mining geologist with the Engineering Company of America (New York). During this time he engaged in office work in Denver and New York and field work in Mexico and various parts of the United States. While thus employed he did considerable research into the design of gas turbines. From September, 1904, to January, 1905, he was assistant engineer of briquetting experiments, United States Geological Survey, in the fuel-testing plant at St Louis, having charge of all laboratory and practical work in briquetting. In February, 1905, he came to the University of Arkansas as associate professor of geology and mining. In June, 1909, he was made professor of mining.

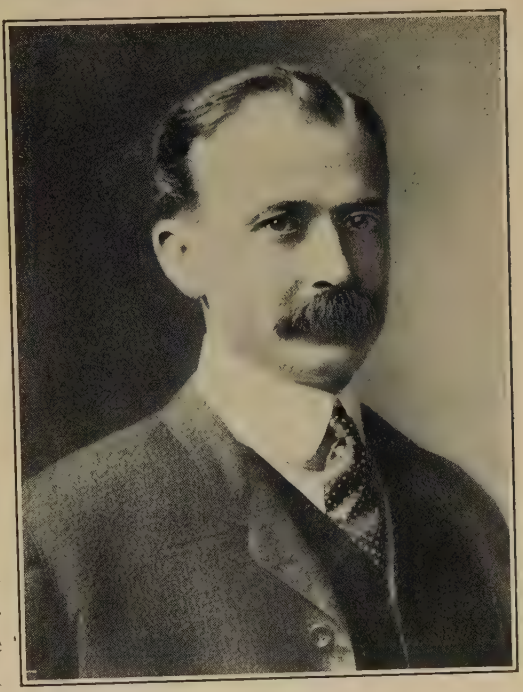
July and August, 1905, he was field assistant U. S. Geological Survey, working up geology and technology of barite in Missouri, Kentucky, Tennessee and Virginia, nickel and cobalt at Mine La Motte, Missouri, and rutile in Virginia and fluorspar in Kentucky. Studied mining at Flat River, Missouri, and Pocahontas, West Virginia, on leave of absence. July and August, 1906, he was assistant geologist North Carolina Geological Survey, studying the condition of gold mining in North Carolina. September, 1906, he was assistant engineer examining the iron and coal properties of the Monterey Steel Company in various camps of northern Mexico.

He is author of the following publications: "Earth Pressure Against Retaining Walls," Engineering News, October 19, 1899; "The Cananea Concentrator," Nebraska Blue Print, 1903; "Ore Deposits of La Cananea," Engineering and Mining Journal, September 26, 1903; "An Improved Method of Framing Square Set Timber," Mining and Scientific Press, August 11, 1906; "Gold Mining in North Carolina," Economic Paper No. 14, North Carolina Geological Survey; "Crucible Assays," Mining and Scientific Press, June 12, 1909; "Geology, Mining and Preparation of Barite in Washington County, Missouri," Transactions American Institute Mining Engineers, 1909.

He is a member of the honorary student organization, the Society of the Innocents of the University of Nebraska; honorary member of the scientific fraternity of the Sigma Xi; of the American Institute

of Mining Engineers; the American Association for the Advancement of Science; and the Society for the Promotion of Engineering Education. He was married to Miss Ethel Olivia Kiefer, July 6, 1906.

John Turner Stinson was born at Pierceton, Indiana, September 5, 1865, but grew up on a farm in Montgomery County Iowa. He entered the Iowa Agricultural College, Ames, Iowa, from which he was graduated in 1890 with the B. S. degree. He was appointed horticulturist of the Arkansas agricultural experiment station, Fayetteville, Arkansas, December, 1891, and later was appointed professor of horticulture in the University of Arkansas. February 1, 1900, Mr. Stinson resigned as professor of horticulture and horticulturist of the agricultural experiment station to become director of the Missouri state fruit experiment station at Mountain Grove, Missouri. The experiment work carried on at this station attracted considerable attention in Missouri and north Arkansas owing to the fact that the experiments for the prevention of bitter rot of apples were successful, and, as this disease caused great loss in the Southwest, the work done was recognized at once.



John Turner Stinson.

While in charge of the experiment station at Mountain Grove, Mr. Stinson conceived and inaugurated a new plan of reaching the farmers with information from experiment stations. A railway car was secured and fitted up with all kinds of spraying pumps and

spraying materials, also microscopes and insect collections. This car was taken to the different towns in south Missouri along the lines of the St. Louis and San Francisco Railroad and public demonstrations were given. This at once became a popular plan of reaching fruit growers and farmers and was taken up by other institutions over the country, the result being the seed-corn specials in Iowa and elsewhere, poultry trains and other novel and interesting methods of reaching a large number of people by the use of special instruction trains. Mr. Stinson was elected superintendent of pomology in the department of horticulture at the World's Fair, St. Louis, and resigned the position at the Missouri state fruit experiment station February 1, 1903. The idea was advanced by him, in arguing the great value of apples as a general diet, that the liberal use of apples would prove a cure for the drink habit. This idea was taken up at once by the associated press of the country and discussed generally in the leading newspapers of the United States and by physicians, not only in this country, but in Europe. While some of the newspapers ridiculed Mr. Stinson's statements, others took the matter up in a serious and thoughtful manner and the records from physicians, almost unanimously, showed that in general practice a man who is a fruit eater, and especially an apple eater, does not use intoxicants to excess. Mr. Stinson was agricultural agent of the Missouri Pacific Railway during 1906 and 1907 and did considerable work in Arkansas during this time. He was elected secretary of the Missouri State Fair, January 1, 1908. Mr. Stinson is a member of the Kappa Alpha fraternity of Fayetteville, Arkansas. He married Miss Robbie Trott of Fayetteville, Arkansas, August 15, 1894. They have four children.

William P. Stone was born in Arkansas, December 30, 1860. He became a cadet in the military academy July 1, 1878, and continued therein until July 25, 1879. He again entered in July, 1880, and in 1883 was made second lieutenant of the second artillery. He entered the artillery school from which he was graduated in 1886. He was promoted to the first lieutenancy of the fifth artillery February 20, 1891. He was transferred to the fourth artillery in May, and in

March, 1898, was transferred to the seventh artillery. He was detailed professor of military science and tactics in the University of Arkansas February 28, 1898. He was promoted to a captaincy in April, 1899, and in September, 1906, he was made major of the artillery corps.

David Yancey Thomas, son of James Fuller and Eliza (Ratliff) Thomas, was born in Fulton County, Kentucky, January 19, 1872. His ancestors were of Scotch-Irish, English and German descent and fought in the Revolution and subsequent wars. His maternal grandmother, who died in 1896, was one of the few pensioners of the war of 1812 at the time of her death. He began his education in the public schools of Kentucky. After two years spent in preparatory work in an institution called Marvin College at Clinton, Kentucky, he entered Emory College (Georgia) and was graduated with the B. A. degree in 1894. He took several prizes while a student, was editor of the college magazine and stood second in a class of thirty-five. On commencement day he delivered the salutatory in Greek. An essay with which he won a prize was afterwards published in the "Methodist Review" (Nashville) under the title, "The Origin of the English Drama."

David Yancey Thomas.

After graduation he taught two years in the public schools of Alabama (Perote) and Georgia (Coleman). He was then awarded a scholastic fellowship in Vanderbilt University, which he held two years.

In 1898 he received the M. A. from Vanderbilt. On leaving there he accepted the chair of Latin and Greek in Hendrix College, which he held three years. While at Hendrix he finally decided to specialize in history and political science and spent the summers at the University of Chicago studying these subjects. In 1901 he was awarded a university fellowship in history at Columbia University. After spending a year there he passed all examinations for the Ph. D., but, his thesis not being quite ready for publication, the degree was not formally awarded until the following year (1903). In September, 1902, he returned to Hendrix College to accept the chair of history and political science, which he held three years. He then accepted a similar position in the University of Florida and remained there two years. This position he gave up to become associate professor of history and political science in the University of Arkansas.

He is the author of "A History of Military Government in Newly Acquired Territory of the United States" (New York, 1904), and of numerous magazine articles on literary, educational, historical, and political subjects. Among the more important of these are the following: "The South and Her History," Review of Reviews, October, 1902; "The Development of the Executive Prerogative," South Atlantic Quarterly, July and October, 1905; "Life, Liberty and the Pursuit of Happiness in Modern Society," Ibid, October, 1907; "The Impending Crisis Fifty Years After," Uncle Remus Magazine, November, 1907; "Florida Finance in the Civil War," Yale Review, November, 1907; "A Forgotten Work of Victor Hugo," Methodist Review, January, 1908; "The Law of Impeachment in the United States," American Political Science Review, May, 1908; "A Year of Bench Labor Law," Political Science Quarterly, March, 1909; "The Need of Agricultural Education in the South," Annals of the Academy of Social and Political Science, January, 1910. While in Florida he prepared reports on the Florida archives for the Annual Report of the American Historical Association; also, he was employed by the Carnegie Institution to write a history of banking in Florida and a history of the free negro in Florida before 1865. He contributed to "The South in the Building of the Nation." He is a member of the American Historical Association and of the Arkansas Historical Asso-

ciation. June 21, 1905, he married Miss Elizabeth Janney, of Conway, Arkansas. Of this union two children have been born, Mary Elizabeth and Albert Janney.

Burr Walter Torreyson, son of James William and Sarah (Stone) Torreyson, was born at Hillsborough, Loudoun County, Virginia, December 10, 1855. He was educated at Hillsborough Academy, the National normal school at Lebanon, Ohio, and at the Michigan state normal college. Since his graduation he has held the following positions: Teacher in the common schools of Virginia, three years; teacher in the common schools of Audrain County, Missouri, three years; principal of the high school at Mexico, Missouri, and county commissioner of schools of Audrain County, seven years; principal Fort Smith high school, nine years; superintendent of Fort Smith schools, three years; superintendent of Little Rock schools, four years; professor of secondary education in University of Arkansas since 1909. Professor Torreyson has been an untiring worker in the interest of public education. He has been actively connected for many years with the Arkansas State Teachers' Association, having served in various official capacities, including the presidency. He was married to Miss Alice Bulgin, June 30, 1899. One daughter was born to them.

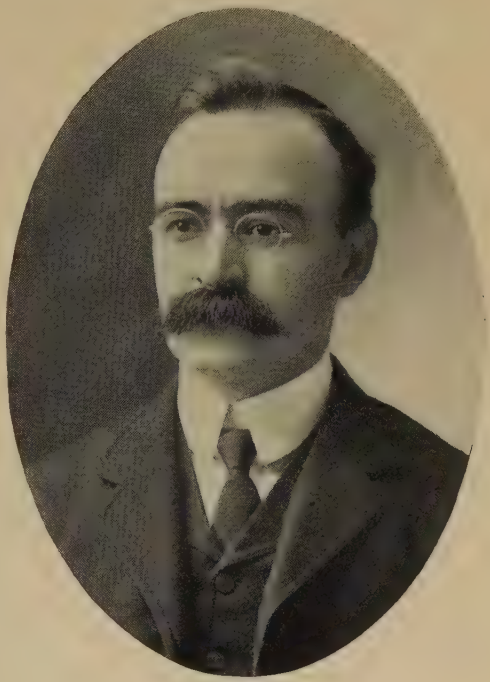
Henry Doughty Tovey.

Henry Doughty Tovey, son of Dr. P. E. and Kate Lola Tovey, was born at

New Boston, Illinois, January 26, 1884. When he was five years old his parents moved to Galesburg, Illinois, where his father has practiced medicine ever since. After graduating from the high school at Galesburg he entered Knox Conservatory of Music, from which he graduated in 1904. He then studied in Chicago with Miss Mary Wood Chase, 1904-05. He traveled with the Columbia Concert Company during the seasons of 1902-05. He taught privately in Galesburg and Canton, Illinois, 1900-05. In 1905 he went to Ouachita College at Arkadelphia, Arkansas, where he taught three years, making frequent short concert trips throughout the State. In 1908 he was elected director of music in the University of Arkansas. He was appointed honorary vice-president of the State Musical Association in 1908; and in June, 1909, he was elected a colleague of the American Guild of Organists. He is a member of the Episcopal Church, and of the Order of Elks.

George William Vincenheller was born in Jeffersontown, Kentucky, April 30, 1850. He moved to Arkansas in October, 1887. Soon after coming here he became interested in fruit-growing and his interest has continued to the present. He has also taken an active part in politics. For six years he was commissioner of mines, manufactures and agriculture. He was pomologist at the Arkansas experiment station two years and was also director of the station for five years. During his administration as director the experiment station was brought prominently before the people of the State, its staff enlarged, and two new buildings (agriculture and dairy) were added at Fayetteville and some small buildings at branch stations. It was also during Col. Vincenheller's term of office that the prairie section of Arkansas was proven by experiments at a sub-station to be adapted to rice-growing. Since his retirement from office in 1908 he has been occupied in looking after his fruit farms and in selling orchard supplies. He is married and has children.

Ernest Walker, son of Reverend Francis and Elizabeth (Graham) Walker, was born at Browntown, Jackson County, Indiana, November 19, 1862. The Fryes, Swans and Walkers of early American days were his ancestors. His early education was obtained in the public



Ernest Walker.

schools of Indiana. He then entered De Pauw University and remained there three years. After leaving De Pauw he took a course in botany at Harvard University in 1893. He then entered Cornell University in 1894 and received the degree of B. S. A. the same year. While a student at De Pauw University he was assistant instructor in botany and horticulture. He began work in a nursery and greenhouse when he was thirteen years old and was afterward associated with his father and brother a number of years in this business. During this period he was a diligent and close student of botany and biological sciences and became an expert in everything appertaining to the greenhouse and nursery business. He was instructor in horticulture in Cornell University, 1896-97.

In the fall of 1897 he was elected entomologist and assistant professor of horticulture in Clemson College, South Carolina. During his service at Clemson College he had charge of the experiment station of South Carolina. While there he performed a valuable service for rice planters by discovering a remedy for rice smut, which resulted in practically exterminating that disease in South Carolina. In 1899-1900 he was professor of entomology in the college of agriculture and entomologist at the South Carolina experiment station. In 1900 he was elected to the chair of horticulture in the University of Arkansas, which position he now holds. From 1900 to 1905 he was entomologist at the Arkansas experiment station. In 1904 he was a member of the national jury of awards in pomology

at the World's Fair in St. Louis. He arranged the landscape work around the Arkansas state building. During his services for the University of Arkansas he has done much for the development of horticulture in the State. He is a member of the Society for Horticultural Science of the Indiana Academy. He was secretary of the Indiana Horticultural Society; secretary of the Arkansas State Horticultural Society; vice-president of the American Breeders' Association, 1896; was chairman for the Arkansas General Fruit Committee of the American Pomological Society, 1905; and was president of the American Pomological Society in 1899-1905.

He is the author of a number of experiment station bulletins; and with L. H. Bailey and others is joint author of "Garden Making." He contributed to the "Encyclopedia of American Horticulture," edited by L. H. Bailey, and also assisted in the preparation of the "Encyclopedia of American Agriculture." He has also made a number of addresses on subjects relating to horticulture and natural science, some of which have been published: "The Autosporadic Seeds of Oxalis Stricta," Philadelphia Academy Science, 1893; "Some Factors in the Distribution of Gleditsia Triacanthos and Other Forest Trees," Indiana Academy Science, 1894; "How Plants Use Spines and Prickles," Indiana Horticultural Society, 1894; "Flowers in the Home," Indiana Horticultural Society, 1894; "Insect Friends," Arkansas Horticultural Society, 1903; "Why Apple Trees Fail," Ibid., 1902; "The Outlook for Apple Growing in the Ozarks," Ibid., 1909; "Science Applied to Orcharding," Ibid., 1908; "Story of the Rejuvenation of an Old Apple Orchard," Fruit Grower, St. Joseph, Mo., February, 1908; "Report on Arkansas Pomology" as state chairman General Fruit Committee, American Pomological Society, 1909; "Charles Darwin," address delivered at University of Arkansas, February 9, 1909, at exercises in honor of Lincoln, Darwin and other great men born in 1809.

He was married to Miss Mary Stanley June 20, 1899. Of this union three children have been born: Marion Newman, Elbert Lewis and Ernestine Ayres.

Olin D. Wannamaker, son of Francis Marion and Eleanor Margaret Wannamaker, was born at St. Matthews, South Carolina, July 16, 1875. After receiving the ordinary common-school education

Olin D. Wannamaker.

at his home town, he entered Wofford College, Spartanburg, South Carolina, in 1892, and graduated in 1896 with the degree of A. B. He became principal of the St. Matthews graded school, St. Matthews, South Carolina, and held this position for two years, 1896 to 1898. A scholarship was awarded him for post-graduate study at Vanderbilt University, for 1898-99, and renewed for 1899-1900. He specialized in English, but took two years of graduate Greek under Professor H. C. Tolman and one year of advanced undergraduate and one year of graduate Latin under Professor William H. Kirk. His English courses were under the late Professor Baskerville for the first year and under Professor William Jones for the second. In June, 1900, he received the degree of M. A. He composed, upon request, an ode for the celebration of the quarter centennial of Vanderbilt University.

During the year 1900-01 he occupied the chair of English at Wofford College in the absence on leave of the professor of English. The year 1901-02 he spent in graduate study at Harvard, pursuing courses in English and Greek. He studied under Professors Kittredge, Gardiner, Gulick, Neilson, and Robinson, and in June, 1902, received the degree of M. A. Immediately after taking the M. A. degree at Harvard Mr. Wannamaker accepted the position of professor of English in the Canton Christian College, of Canton, China. This is an undenominational American institution for the education of Chinese young men. He occupied the position till April, 1908, when

he returned to America. During 1905-06 and a part of 1907-08 he was acting president of the college. In 1904 he made a visit to Manila to study the American school system of the city, and in 1905 he visited a number of American institutions in central China, and read a paper at the triennial conference of the Educational Association of China, meeting in Shanghai, May, 1905, on the "Teaching of Elementary English to Chinese Students." During 1908-09 Mr. Wannamaker was associate professor of English at the Woman's College of Baltimore. He pursued a seminary course in middle English under Professor J. W. Bright at the Johns Hopkins University. He resigned the position at the Woman's College to accept the position of acting professor of English at the University of Arkansas for the two years 1909-11. Mr. Wannamaker read the poem at the annual meeting of the alumni of Vanderbilt University in June, 1910.

On February 7, 1907, he married Miss Katharine Hume, daughter of Reverend and Mrs. Edward S. Hume, who for many years were engaged in educational work in India.

Jay Manuel Whitham, son of John and Caroline (Rowe) Whitham, was born in Warren, Illinois, August 24, 1858. He graduated in marine engineering and naval architecture from the United States Naval Academy in 1881. After his graduation he was attached to naval vessels in 1881-83. In 1883 he completed the six years' course at the United States Naval Academy. He resigned his commission in the navy in February, 1886, having been sent to the University of Arkansas as commandant in 1885. He held this position until 1887. He received the M. A. from St. John's College in 1885 and the C. E. and M. E. degrees from the University of Arkansas in 1891. He established the courses in civil and mechanical engineering at the university and held the combined chair from 1885 to 1891. The first two classes in engineering graduated during his administration. Since leaving the University of Arkansas in 1891 he has been engaged in the practice of steam and hydraulic engineering with headquarters in Philadelphia. He is author of "Steam Engine Design" (1889) and "Constructive Steam Engineering" (1891). In addition to these he has contributed many engineering papers to technical journals. He

is a member of the American Society of Mechanical Engineers; American Society of Naval Engineers; American Society of Marine Engineers and Naval Architects; and the New England Water Works Association. He was married to Miss Rebekah Emmet, July 25, 1883. Two sons and two daughters were born to them: Dr. Jay Deshiell and Dr. Lloyd Bankson Whitham, Eleanor Homassel and Margaret Vaulx Whitham.

Richard Henry Willis, Jr.

Richard Henry Willis, Jr., was born in Orange County, Virginia, August 12, 1849. He was the son of Richard Henry and Mary Nalle Willis, and came of excellent family on both his father's and mother's side. On his mother's side he was a great-nephew of Governor James Barbour and of Judge Philip Pendleton Barbour of the United States Supreme Court.

At an early age he showed an unusual aptitude for learning and made good progress in his studies while yet a small lad under instruction in his father's home. At the age of twelve or thirteen, near the beginning of the Civil War he became an inmate of the home of his uncle by marriage, Colonel Garrett Scott of Orange County, and there passed his studies in a home school kept by Miss Nelly B. Scott and later by Mr. Philip H. Scott, a graduate of the University of Virginia. Here he laid the foundation for that solid and accurate scholarship to which he later attained. For one session (1886) he attended the Locust Dale Academy in Madison County, at that time kept by Andrew J. Goodwin. He was unable, under the pressure of

narrow fortune, to attend the university until after he had saved enough money, while teaching school in Missouri. At the University of Virginia he distinguished himself, winning the confidence and esteem of the students and professors, particularly of Dr. Basil L. Gildersleeve of the chair of Greek, with whom he kept up correspondence until his death. After leaving the university he taught at various dates in Eatonton, Georgia, The Dalles, Oregon, Anniston, Alabama, and was co-principal of the Norwood high school in Nelson County, Virginia. In all these positions he exhibited the gifts of the born teacher and left his impress on many of the rising generation who have since attained to distinction in the various callings of life.

In 1885 he was called to the chair of ancient languages in the University of Arkansas, which he filled with success for several years and then after an interval of a year or so was recalled to the same university to fill the chair of English and modern languages. He held this position until 1898. Thrice he went abroad to widen his views and deepen his knowledge, first in 1873, then in 1885, and again in 1898. Various universities conferred on him degrees. B. A., M. A., and Ph. D. were given him by the University of Virginia, Illinois Wesleyan, Willamette University and Princeton University. Dr. Willis was one of the leaders in organizing the university extension course at the University of Arkansas. He also, with the assistance of his cousin, Mr. Charles Willis, wrote a "History of the Willis Family."

In 1887 he was married to Miss Elizabeth May Hall, a degree graduate of Syracuse University, Syracuse, New York, who had been director of the arts and crafts department in the Arkansas Industrial University for the two years previous to their marriage. Two children were born to them, Richard Lee in 1893 and Katharine Murat in 1896, both being born in Fayetteville. In 1898 he was asked to take the presidency of a newly organized church school, the Chatham Episcopal Institute at Chatham, Virginia. The institute was growing rapidly under his superior management, when he was suddenly stricken with pneumonia, and after a brief illness passed to the higher life January 1, 1900.

He was thoroughly devoted to his profession and was a conscientious teacher. Always the refined gentleman, his life and character

will ever be remembered as one of true worth and value, and his patient and enduring kindness to all mankind a most valuable lesson to many.

Birton Neill Wilson.

Birton Neill Wilson, son of Irvin and Lucy (Mooney) Wilson, was born November 16, 1874, in Philadelphia, New York. His early education was received in the public schools of New York City and of Atlanta, Georgia. He was a student at West End Academy at Atlanta, after which he entered the Georgia School of Technology. He graduated in 1896 with the degrees of B. Sc., M. E. In the fall of 1896 he entered the University of Arkansas as instructor in the mechanical engineering department and served successively as instructor and adjunct professor for a number of years. In June, 1903, he was made full professor of mechanical engineering, which position he now holds. During a number of years he was superintendent of the grounds and buildings of the university. He attended the summer sessions of the University of Michigan and in June, 1908, received the M. E. degree from this institution. He has had practical experience as pattern maker and as sales agent for different companies. He is a member of the American Society of Mechanical Engineers and also the Society for the Promotion of Engineering Education. On December 28, 1898, he was married to Miss Hallie Barlow of Franklin, Kentucky. Two daughters, Frances Lucille, and Katherine Neill, were born of this union.

TABLE I.

Showing the number of male and female students of collegiate grade in the university each year since 1872. Short course and conservatory students not included.

Year.	Males.	Females.	Total.
1872	4	6	10
1873	19	12	31
1874	60	20	80
1875	87	50	137
1876	86	32	118
1877	74	27	101
1878	68	28	96
1879	87	32	119
1880	122	30	152
1881	101	19	120
1882	72	15	87
1883	54	23	77
1884	66	17	83
1885	52	15	67
1886	47	21	68
1887	62	15	77
1888	65	20	85
1889	67	20	87
1890	87	26	113
1891	89	26	115
1892	121	47	168
1893	127	57	184
1894	150	67	217
1895	146	70	216
1896	186	73	259
1897	...	...	...
1898	147	53	210
1899	108	46	254
1900	188	35	223
1901	193	62	255
1902	191	43	234
1903	153	47	200
1904	327	43	370
1905	329	52	381
1906	405	92	497
1907	409	121	530
1908	455	137	592
1909	357	126	483

TABLE II.

Showing the number of students who entered the Freshman class from the preparatory department each year since 1873.

Year.	No. Freshmen entering each year from preparatory department.	Not from preparatory department.	Total.
1873	9	7	16
1874	10	25	35
1875	40	30	70
1876	38	17	55
1877	26	29	55
1878	24	22	46
1879	25	42	67
1880	24	65	89
1881	22	26	48
1882	26	8	34
1883	30	12	42
1884	28	20	48
1885	19	14	33
1886	18	15	33
1887	31	12	43
1888	17	20	37
1889	36	13	49
1890	39	19	58
1891	37	23	60
1892	61	37	98
1893	63	33	96
1894	51	34	85
1895	..	..	...
1896	55	68	123
1897	49	38	87
1898	41	62	103
1899	39	51	90
1900	44	54	98
1901	45	44	89
1902	49	36	85
1903	45	45	90
1904	63	76	139
1905	57	74	131
1906	67	102	169
1907	94	132	226
1908	92	161	253
1909	63	181	244

TABLE III.

Showing the number in each senior class since 1876 and the number who came up from the preparatory department.

Year.	Total No. in senior class.	No. in senior class that came up from preparatory department.
1876	9	2
1877	9	1
1878	5	1
1879	8	0
1880	10	3
1881	7	3
1882	15	3
1883	7	5
1884	10	6
1885	6	4
1886	5	3
a 1887	...	...
1888	13	1
1889	7 2 g b	5 1 g
1890	7	2
1891	8 5 g	4 1 g
1892	12 5 g	7 1 g
1893	14 3 g	7 3 g
1894	16 11 g	2 8 g
1895	23 14 g	12
1896	15	5
1897	18	...
1898	15 3 g	5
1899	13	2
1900	24	3
1901	28	5
1902	24 4 g	9 1 g
1903	28 2 g	9
1904	35 3 g	17 2 g
1905	34 7 g	18
1906	50 13 g	26 2 g
1907	58 6 g	26 2 g
1908	58 3 g	22
Total,	672	243 38.37 %

a No graduating class.

b The number before the letter "g" indicates the number of graduate students.

TABLE IV.

Showing the number of undergraduate degrees conferred each year since 1876.

Year.	B.A.	B.S.	Miscel.	B.S.A.	B.E.E.	B. M. E.	B. C. E.	B. Ch. E.	Males	Females
a 1875	....	....	.....	.....	.....	....	....	.....	4	6
1876	7	....	2 B.L.L.	.....	.....	....	....	.....	5	4
b 1877	4	....	3 B.L.L.	.....	.....	....	....	.....	8	2
1878	5	....	.....	.....	.....	....	....	.....	3	2
1879	8	....	.....	.....	.....	....	....	.....	7	1
1880	5	....	5 B.L.L.	.....	.....	....	....	.....	7	3
1881	6	....	.....	.....	.....	....	....	.....	4	2
1882	13	....	2 B.L.L.	.....	.....	....	....	.....	15	0
1883	5	....	2 B.L.L.	.....	.....	....	....	.....	5	2
1884	8	3	.....	.....	.....	....	....	.....	10	1
b 1885	2	....	3 B.L.L.	.....	.....	....	....	.....	6	0
1886	5	...	.....	.....	.....	....	....	.....	2	3
c 1887	....	....	.....	.....	.....	....	....	.....	....	....
1888	7	1	1 B.L.L.	.....	.....	....	4	.....	11	2
1889	2	3	.....	.....	.....	....	2	.....	4	3
1890	4	2	.....	.....	.....	....	1	.....	6	1
1891	4	....	.....	.....	.....	1	3	.....	8	0
1892	7	1	.....	.....	.....	1	3	.....	9	3
1893	4	5	.....	.....	1	1	4	.....	13	2
1894	9	1	.....	.....	2	1	3	.....	14	2
d 1895	....	....	.....	.....	.....	....	....	.....	....	....
1896	15	6	.....	.....	2	....	2	.....	14	11
1897	8	3	.....	.....	2	3	1	.....	14	3
1898	14	....	.....	.....	.....	....	1	.....	12	3
1899	10	1	.....	.....	1	....	1	.....	11	2
1900	16	5	.....	.....	1	1	1	.....	19	5
1901	18	5	1 B. Ph.	.....	4	1	4	.....	26	2
1902	10	5	3 B. Ph.	.....	2	1	4	.....	19	5
1903	13	3	5 B. Ph.	.....	3	3	5	.....	23	4
1904	19	1	1 B. Music.	.....	4	2	3	.....	25	6
1905	14	8	2 B. Music.	.....	2	1	6	1	30	5
1906	19	10	1 B. S. C. . .	3	2	4	9	1 B. Mi. E.	49	7
1907	26	9	2 B. Music. .	1	4	1	12	.....	45	15
1908	36	5	2 B. Music.	1 B. S. C.	2	1	14	.....	48	4
1909	43	4	.....	4	3	1	7	.....	47	15

a No degrees conferred previous to 1876.
b 1877 the degrees of three listed with graduates not given; 1885 one not given.
c No graduates.
d Owing to the change from winter to summer vacation there was no graduating class in 1895.

TABLE V.

Showing by years the number of candidates for the several degrees in the college department. The figures do not include special and short-course students. The totals do not include the students in law and medicine.

Year.	1872	72–73	73–74	74–75	75–76	76–77	77–78
Graduate	.....	.....	.....	.....	.....	.....	.....
A. B.	10	16	36	56	55	51	96
B. S.	.....	.....	.....	.....	.....	.....	.....
B. Ch. E	.....	.....	.....	.....	.....	.....	.....
B. M. E.	.....	.....	.....	.....	.....	.....	.....
B. C. E	.....	.....	16	17	4	.....	.....
B. E. E.	.....	.....	.....	.....	.....	.....	.....
Agriculture	.....	.....	.....	.....	.....	46	.....
Music	.....	.....	.....	.....	.....	.....	.....
L. I.	.....	15	29	58	51	.....	.....
Total	10	31	81	131	110	97	96

Year.	78–79	79–80	80–81	81–82	82–83	83–84	84–85
Graduate	.....	.....	.....	.....	.....		
A. B.	143	142	114	84	73		
B. S.	.....	6	1	....	.....		
B. Ch. E	.....	.....	.....	.....	.....		
B. M. E.	.....	.....	.....	.....	.....		
B. C. E.	5	5	5	4	4	Not Designated.	Not Designated.
B. E. E.	.....	.....	.....	.....	.....		
Agriculture	.....	.....	.....	.....	.....		
Music	.....	.....	.....	.....	.....		
L. I.	.....	.....	.....	.....	.....		
Pharmacy	.....	.....	.....	.....	.....		
Total	148	153	120	88	77		

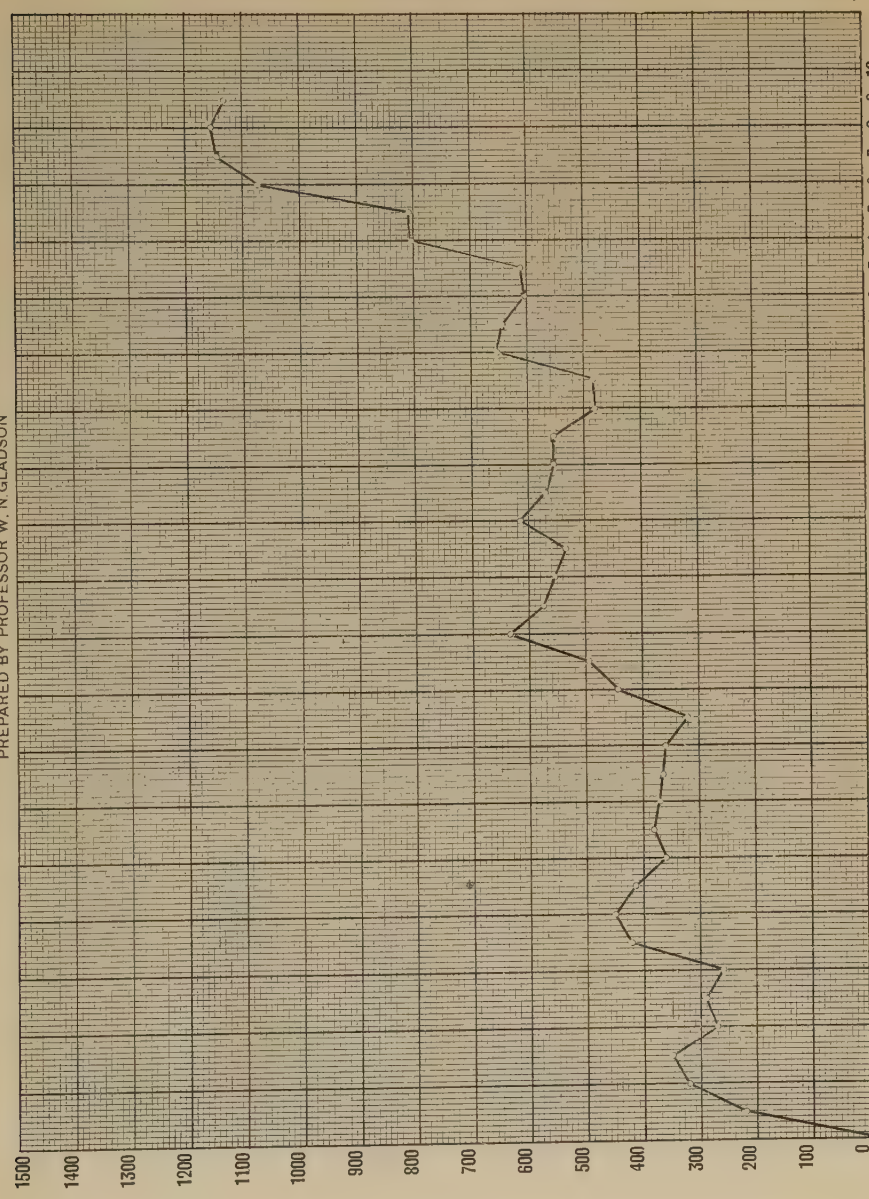
TABLE V.—CONTINUED.

Year	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94
Graduate	Not Designated.	Not Designated.	.....	2	6	5	5	2	11
A. B.			29	29	34	33	59	68	87
B. S.			15	16	22	30	41	38	28
B. Ch. E.			.....	.....	.....	.....	.....	.....	.....
B. M. E.			2	3	2	6	8	9	9
B. C. E.			29	21	25	23	22	19	10
B. E. E.			.....	.....	.....	.....	.....	7	23
Agriculture			3	2	3	3	3	.....	3
Music			27	25	26	45	38	21	.....
L. I.			9	7	8	12	16	15	14
Total			113	104	126	157	222	179	185
Law			.....	.....	.....	.....	.....	.....	36
Medicine			.....	.....	76	113	138	74	72

Year.	95-96	96-97	97-98	98-99	99-00	00-01	01-02	02-03
Graduate	14	.....	3	1	1	6	4	2
A. B.	120	115	140	104	153	98	93	80
B. S.	31	22	24	20	33	24	13	17
B. Ch. E.	.....	.....	.....	.....	.....	.....	.....	.....
B. M. E.	5	9	5	7	11	9	7	7
B. C. E.	13	10	8	14	28	31	37	51
B. E. E.	17	8	14	20	25	17	10	21
Agriculture	.....	1	.....	7	.....	.....	1	.....
Music	38	18	23	48	64	54	77	64
L. I.	26	15	6	14	19	18	8	8
Pharmacy	10	.....	.....	.....	.....	.....	.....	.....
Total	274	200	223	235	334	247	240	250
Law	22	22	26	.....	14	21	35	39
Medicine	86	91	102	108	123	240	220	236

TABLE V.—Concluded.

Year.	03–04	04–05	05–06	06–07	07–08	08–09
Graduate	3	7	13	5	3	6
A. B.	115	111	163	196	269	280
B. S.	35	36	30	36	9	1
B. Ch. E	.....	7	6	9	12	11
B. M. E.	10	15	14	18	17	21
B. C. E.	72	68	67	83	82	60
B. E. E.	35	37	42	39	58	63
Agriculture	.....	10	13	19	13	13
Music	24	19	26	40	26	38
L. I.	10	17	14	42	62	83
B. Mi. E.	4	1	4	5	6	9
Total	308	328	392	489	547	585
Law	25	42	46	46	55	65
Medicine	213	212	171	240	175	171


TOTAL ENROLLMENT AT FAYETTEVILLE
PREPARED BY PROFESSOR W. N. GLADSON
1500
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
1872 3 4 5 6 7 8 9 1880 1 2 3 4 5 6 7 8 9 1890 1 2 3 4 5 6 7 8 9 1900 1 2 3 4 5 6 7 8 9 10
Gates-Bishop
Hill
Edgar
Murfee
Buchanan
H.S.Hartzog
Tillman

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